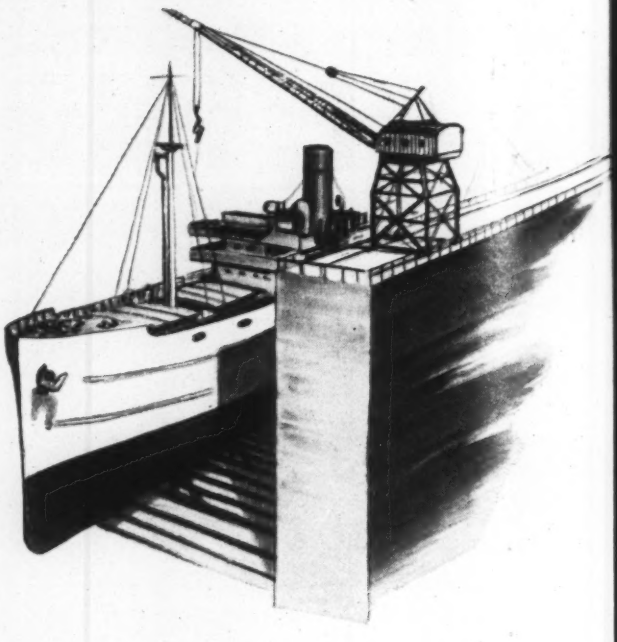
ENGINEERING NEWS-RECORD

Bulldozer plows out road for U. S. Marines invading Guam.

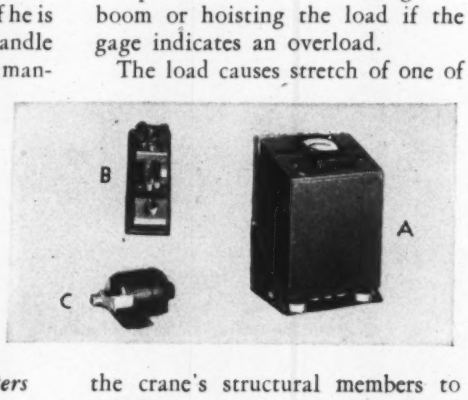
The GAGE *that* GUARDS LIVES *and equipment*



By J. P. Smith, Industrial Engineering Division, General Electric Company

On guard against crippling accidents at many drydocks is a tiny gage no larger than half the size of a cigarette package. This gage protects one of the busiest pieces of equipment on the docks—the revolving-boom-type crane.

EVERY craneman knows the difficulty of determining the weight he is to handle, and the radius at which he can swing the boom. If he is overcautious, he hesitates to handle loads that the crane can safely manage, and thereby slows the work—in this case the servicing of ships. If he becomes overzealous and picks up more than the crane can safely handle, he runs the risk of overturning the crane, ruining material, and losing lives.



The crane-stability gage enters the picture

This gage (components shown in picture) has removed the necessity for guesswork in crane operation. Now, by glancing at an indicating instrument (A) the operator can determine whether he is "safe," or getting "out of bounds." It is possible even to interlock the crane-stability gage with the electric controls of the crane in such a way that the operator will automatically be prevented from lowering the boom or hoisting the load if the gage indicates an overload.

The load causes stretch of one of the crane's structural members to which the magnetic strain gage (B) is attached. This stretch is measured accurately by the gage by the changing of the gage's .005-inch air gap, which in turn causes movement of a pointer over the five-inch scale of the instrument near the operator.

The boom-angle compensator (C), which measures the boom angle, constantly corrects the reading as the radius changes. Thus the operator knows, at any radius, when he is handling his maximum safe load.

What the crane-stability gage does

1. Gives the operator a continuous accurate indication of crane stability at all times.

2. Prevents unsafe operation by giving an alarm automatically when the load limit is reached. Also, the gage can often be interlocked with the crane controls.

3. Measures crane stability *whether the load is stationary or in motion.*

★

In thus eliminating one of the hazards of crane operation, G.E. has enabled workers in the heavy construction industry to obtain maximum output from expensive equipment, with less danger to life and material. Whenever you have an electrical problem, call on G-E engineers. They will be glad to work with you. *General Electric Company, Schenectady 5, N. Y.*

★

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The Week In Engineering and Construction

GINEERING NEWS-RECORD • AUGUST 17, 1944 • VOLUME 133 • NUMBER 7

Lumber situation improves as war agencies are favored

Mills now withhold large share for military operations. New procedure, coupled with reduced inventories, may cause slower deliveries for civilian work

A pronounced improvement has been de in the ability of military organi-ions to procure lumber during the r six months and further improve-t is hoped for in the future, ac-ding to Col. Fred G. Sherrill of the rps of Engineers and chief of the ntral Procuring Agency. Whereas Army, Navy, and other war agen-s in early February had unplaced ers in all species amounting to over ,000,000 b. ft., of which 330,000,-0 ft. were in southern yellow pine, as Aug. 5 the total backlog of unplaced ers amounted to but 150,000,000 ft., which less than one-seventh of the uisitions were requests for southern low pine.

The improved situation is attributed the military organizations in part to spension by the War Production ard last spring of Form 2720 used construction contractors and other rs except the armed forces, partly shrinkage in military requirements, d to a considerable extent to efforts the CPA to get orders on the books the mills. It was contended that rm 2720 put mills in a position to ose between prospective purchasers, d the inference is that they some-es made a choice that favored civil-buyers.

Large share for military

The new WPB overall lumber order 335, which became effective Aug. 1, s aside a percentage of each mill's pply for the military. The percent-es reserved in each effected species e:

Douglas fir, 35; yellow pine, 35; dwood, 60; western pine, 20 and press, 30.

Under this setup, contractors and her users will get what is left, since e mills must accept military orders up to the specified quotas not only as to species but also in the sizes indicated, even though a competing civilian offer to purchase may be more attractive. The civilian purchaser now gets his lumber—with exceptions—by application to WPB.

Recent shrinkage in requirements—another reason for improvement in placing orders—became apparent in July in all types of hard and softwood species. This reduction followed a tremendous uprising in buying for the military forces the first six months of this year when more lumber was bought than during any other six months since the war started. Through central procuring agencies three and one-half billion feet were purchased. This quantity was within two billion feet of the total amount bought during all of 1943. The obvious conclusion is that the Army and Navy were getting ready for 1944 operations in the war zones.

It is known that only a small percentage of the purchases went into domestic construction for the military groups. Though the great majority of the lumber bought was for boxing and crating, it is also known that there has been a substantial movement of lumber, as such, off both coasts for construction and repair.

Inventory drop noted

In connection with the lumber supply, it is announced by WPB that the heavy withdrawals from retail and wholesale distribution yards during the first quarter of the year, without compensating increases in receipts, reduced stocks 18.8 percent during that period. Stocks on hand at the end of March totaled 2,401,548,000 b. ft., as compared with 2,955,450,000 b. ft. at the beginning of the year.

Acme photo

Building a coral airstrip on Saipan

Aviation Engineers (ENR, July 27, vol. p. 84), working close behind assault troops, surface an airstrip on Saipan Island with coral hauled from nearby pits. The coral, because of its availability, hardness and good drainage properties (ENR, July 13, vol. p. 27), is an ideal material for building landing surfaces in the tropical islands.

Engineering firms make highway surveys

Due to the lack of an adequate staff in many state highway departments, an increasing number of contracts for surveys for postwar highway projects are being let to private consulting firms.

The Texas State Highway Commission on July 25, entered into a contract with the J. E. Grenier Co., of Baltimore, for a survey and report on highway facilities in the Houston-Beaumont area. The survey will include recommendations on the type of development, approximate cost and estimates of future traffic requirem The work is to be completed in months at a cost to the state of $25,

A similar contract for the Dal Fort Worth area was entered into s time ago with the firm of Par Brinckerhoff, Hogan and Macdon of New York. It is expected tha third contract will be let soon co ing highways in the San Anto metropolitan region.

The Board of Estimates of the city Baltimore, Md., July 28, authorized employment of Robert Moses, N York planning authority and comm sioner of parks in that city, to m a highway survey for Baltimore, p ticular attention being paid to proposed mid-city freeways as rou for carrying traffic through the Ba more metropolitan region. The fee the survey is stated to be $50,000, a the work is to be completed in 75 da New York engineering firms are stat to be associated with Mr. Moses.

Michael Baker, Jr., Rochester, P who several months ago was engag by the Pennsylvania Department Highways to make surveys for t Penn-Lincoln Parkway to the east Pittsburgh also is making surveys f a proposed Penn-Lincoln Parkway e tension west from Pittsburgh.

• • •

Road equipment tires get OPA ceiling price

Retail ceiling prices for off-the-ro tires made with rayon fabric—us principally on road construction equi ment—have been established, the Offi of Price Administration has a nounced. The ceiling, which is to b effective from Aug. 10 to Oct. 15, is s at 112½ percent of the already esta lished maximum price for the sam type and size of new tires made cotton fabric. Further study is bein made to determine a permanent cei ing.

OPA also announces an addition quota of 25,000 large truck and bu tires for rationing during August, sizes 8.25 and larger that, as reporte in *ENR* Aug. 10, vol. p. 137, are scarce supply. The increase bring the August quota to 85,000, but th is considered insufficient in view of th 165,000 estimated as necessary for th third quarter. The additional quota due to slightly increased productio OPA says.

Wide World photos

German prisoners help prevent Mississippi erosion

German war prisoners are being used by the U. S. Army Engineers in their perennial task of protecting the banks of the Mississippi River against erosion. Protection of the banks has to be continued dispite the war and manpower shortage. Here shown at the top are prisoners working in the casting yard near Greenville, Miss., casting the cable-interlocked concrete blocks that make up the revetment materials used in that area to protect slopes under attack.

In the lower picture is shown the matlaying barge on which the sections are assembled and lowered to the river bank. For details of the method see ENR, March 15, 1928.

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Illinois department to construct 52 miles of strategic highway this year

Deteriorated pavement on Route 66 in vicinity of Bloomington to be replaced with a 24-ft. slab along side of old roadway

Notwithstanding the war, the Illinois State Highway Department plans to build 52 mi. of concrete pavement this year on U. S. Highways 66 and 50. This new construction is necessary because the existing pavements have become so badly deteriorated that they cannot be expected to hold up under heavy wartime loads for another year, according to W. W. Polk, chief highway engineer. Both routes are strategic highways and their closing would seriously handicap transportation of war goods.

The work on Route US 66 will involve 11½ mi. of new pavement between McLean and Bloomington, 27½ mi. between Bloomington and Pontiac, and a 4-mi. relocation at Dwight. The section on US 50 extends west from Lawrenceville 9 mi. to a point north of Sumner. Last year new pavement was laid on 3 sections of Route 66, which traverses Illinois diagonally from Chicago to St. Louis, and that construction developed into a race against time before the old road failed completely.

All new pavement will be portland cement concrete, 24 ft. wide, and of uniform 10-in. thickness. As in the case of the 1943 construction, all new pavement on US 66 will be built to one side of and separated from the existing pavement. When the new pavement is completed and opened to traffic, the old will be abandoned except for short lengths needed for local service. Conversion of the highway to a 4-lane divided type after the war by reconstruction of the abandoned pavement is contemplated.

The section of Route US 50 will follow a straight-line relocation eliminating about 1½ mi. of adverse distance. The immediately proposed pavement will be built off-center of a wide right-of-way, to permit postwar construction of a second 2-lane pavement, to be separated from the first by a center parkway.

Approval of the Public Roads Administration has been secured for this new work. Exact figures on the amount of federal participation have not yet been determined, but will amount to around 20 percent of the total cost—to be taken from unobligated balances of current regular federal aid funds. WPB approval has been secured and preference rating orders covering critical materials have been issued.

Dates for receiving bids have not yet been scheduled. Plans have been completed, however, and bids will be taken on the work as soon as the State Highway Department completes the acquisition of all necessary right-of-way.

Wisconsin is ready with big road program

The state of Wisconsin can begin approximately $16,584,000 worth of construction work on some 330 miles of state trunk highways just as soon as labor, material and equipment is available according to a report sent to the War Production Board by the State Highway Commission.

Surveys also are being made for an overall program that will cover 1,192 miles of state trunk highway work at an estimated cost of $71,358,500 and that will take in improvements and extensions. Of this project there are 871 miles of construction to cost $40,000,000 that is "programmed and wholly or partially financed" although detailed construction plans have not yet been completed.

Plans also are being made for another 300 miles of state trunk highway construction involving a probable expenditure of $30,000,000. The commission has about $6,000,000 worth of federal aid in frozen funds.

• • •

WPB may requisition construction equipment

Four thousand used tractors, besides many motor graders, shovels, draglines, cranes and backhoes, are needed for use in mining, logging and petroleum operations and for farm work, Henry M. Hale says in an appeal to construction contractors to make their idle equipment available.

"A vigorous program is now under way," he says, "to obtain such equipment through voluntary sale, rental or contracting. But if their present owners do not see to it that they are put to work, it may be necessary to resort to requisitioning." He adds that he is confident there will be no difficulty in obtaining new equipment after the war, since "present output of construction machinery manufacturers shows that they have ample production capacity to fill future civilian demand, once military needs decline."

The War Production Board and the Office of Price Administration have cooperated in an effort to persuade contractors to sell equipment. Recently OPA increased ceiling prices at which used equipment can be sold and WPB announced its plan whereby contractors were urged to contract for the needed work (*ENR*, June 6, p. 850).

• • •

Measures taken to aid Northwest labor needs

Drastic measures to meet a serious labor shortage situation in the three Washington counties of Pierce, Kittitas and Snohomish were undertaken Aug. 6 when a Puget Sound area labor supply committee comprised of representatives of the Army, Navy, federal agencies and industry met in Seattle. They adopted the following policies:

1. Civil construction and repair work are postponed indefinitely.

2. Naval and military projects henceforth will be given one of seven classifications and labor unions will be asked to refrain from assigning men to lower classifications until construction jobs in the higher brackets have been completed.

During the meeting it was disclosed that 290 hitherto unannounced naval and military projects costing more than $100,000,000 have been started recently in that area, or will be launched in the early future, and that contractors in the Puget Sound area face a shortage of at least 13,000 workers. It was estimated that an additional 24,000 workers would be needed in the shipyards and aircraft factories located in this area.

• • •

Coredrilling under way for Tule River Dam

Cores were being drilled early in August by government engineers at the proposed site of the postwar dam on the Tule River, near Bakersfield, Calif. With cores showing sand at an 80 ft. depth, it was anticipated the site would be shifted if a suitable foundation were not found.

The $1,500,000 Tule dam is proposed as a flood control project, although regulated flow from the dam will be used for irrigation.

Anderson Ranch Dam Pushed as War Project

Once shut down by a War Production Board order, the Anderson Ranch Dam project on the Boise River 40 airline miles from Boise, Idaho, is now being pushed to completion by the Bureau of Reclamation as part of a war program to increase food production. The project will supply supplemental irrigation waters for 34,000 acres of highly developed farm lands in the Boise Valley. Under the present construction program 45,000 acre feet of water will be stored in 1945, about 130,000 acre feet in 1946, and the full storage of 500,000 acre feet in 1947.

When completed in 1946 the earthfill structure will contain 8,800,000 cu. yd. of earth and rock and will be 456 ft. in maximum height, making it the highest earthfill dam in the world. Essentially a multi-purpose project embodying irrigation, flood control, power production and silt control, the development will cost $13,000,000.

Construction of the dam was begun in August, 1941, when the construction contract was awarded to Morrison-Shea-Twaits-Winston, a joint venture of Morrison-Knudsen Co., Inc., J. F. Shea Co., Inc., Ford J. Twaits Co., and Winston Bros. Co. The original program was designed to complete the dam and powerhouse in April, 1946, and in accordance with this plan, by May 18, 1942, the 20-ft. dia. diversion tunnel, 1,500 ft. long had been driven and lined, and the river diverted. By the end of 1942 stripping of the dam abutments had been nearly completed, the 200-ft. wide, 125-ft. deep cutoff trench excavated, the cutoff walls built, grouting finished in the bottom of the trench, and the ditch backfilled to about one-half depth. Camp and access road construction was well advanced. In addition a $1,000,000 nine-flight conveyor belt leading from the main borrow pit to the dam site, which is 1½ miles away and 1,200 ft. lower in elevation, also had been constructed. On the basis of contract earnings the dam was one-third completed.

In December, 1942 a WPB order was issued prohibiting further construction except that needed to protect work already completed, which included backfilling the cutoff trench to river level. This work was done during the 1943 season. In October, 1943, the stop order was lifted and a construction program worked out that would provide badly needed irrigation water at the earliest possible date. Construction of the powerhouse and installation of turbines and generators, the spillway control gates and the permanent outlet control valves has been postponed until after the war.

This new construction program calls for the placing of 2,000,000 cu. yd. of earthfill this season, 3,000,000 cu. yd. next season and the completion of the embankment in 1946. Embankment now in place totals 2,360,000 cu. yd. and 27,000 cu. yd. of concrete have been placed. An additional 55,000 cu. yd. of concrete will be required in the outlet works intake structure and the spillway. Nearly 22 miles of roads to replace those inundated by the reservoir are being constructed. Reservoir clearing work involves the cutting and removal of 4,000 acres of brush and merchantable timber.

Material for the dam is being obtained from two major borrow areas.

Fig. 1. Construction operations as seen looking downstream from right abutment. Belt conveyor discharging near top of distant canyon wall is delivering impervious material for dam. Note two cutoff walls farther to the left.

...e known as the Dixie pit (Fig. 2) ...ill supply 4,500,000 cu. yd. of im...ervious material for the central portion ...f the dam, this material being delivered ...y the 1½-mi. belt conveyor. A second ...ea, known as the Whipple pit, and located just upstream from the dam (Fig. 3), will supply 2,000,000 cu. yd. of pervious material of 5-in. max. diameter.

For the Bureau of Reclamation, H. F. Bahmeier is construction engineer on the project, D. L. Armstrong supervises grouting and foundation work, and U. V. Engstrom oversees earthfill operations. For the general contractors, V. A. Roberts is project manager, William N. Woodall, superintendent, and F. B. Morrison, office manager.

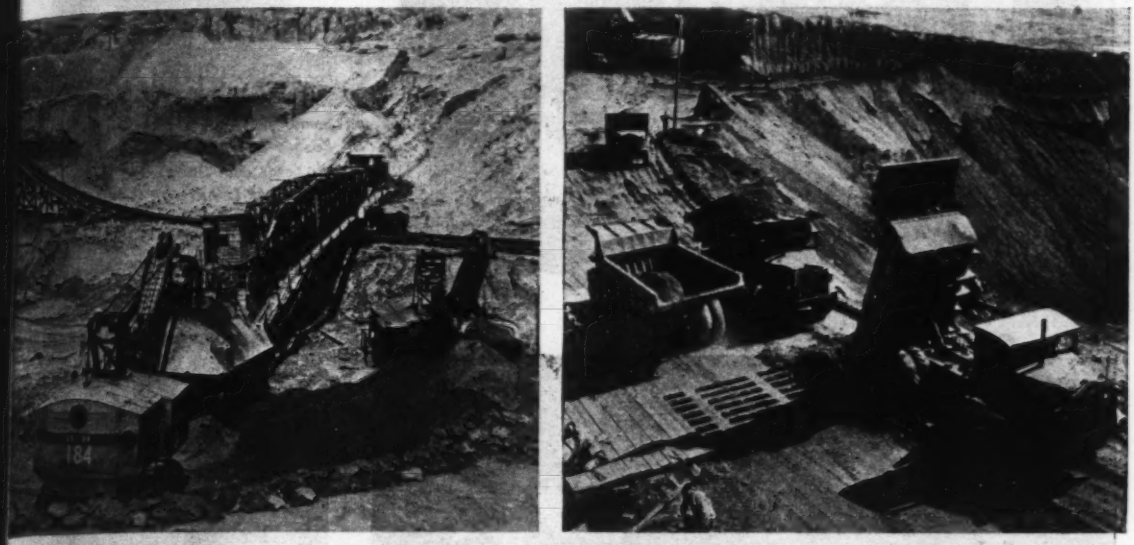
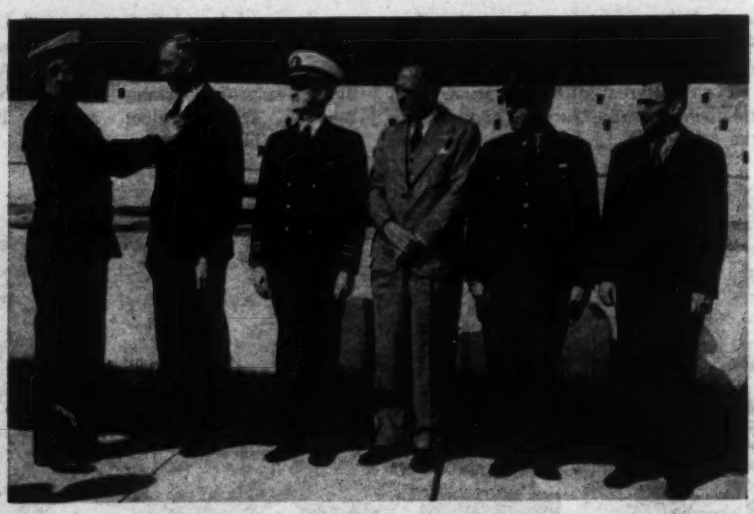


Fig. 2. Impervious material for central portion of dam is obtained from Dixie borrow pit 1½ miles from the construction site. From this pit 4,500,000 cu. yd. of earth will be delivered to the damsite by a nine-flight, 36-in. wide belt conveyor. Normally the material is delivered to the belt by electric shovels feeding the loading pendulum at left, but when the pendulum is out of operation the belt is fed through the truck dump at the right.

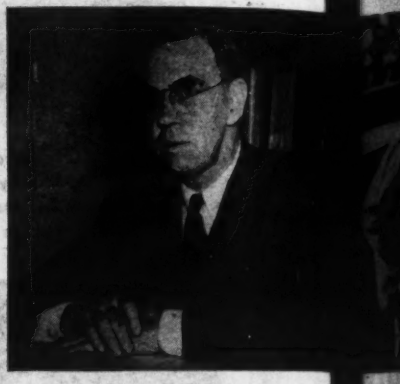
Fig. 3. From Whipple borrow pit, located just upstream from the dam, 2,000,000 cu. yd. of pervious material of 5-in. maximum size will be obtained. The material is prepared by the screening plant above, being dumped through a grizzly onto a 36-in. conveyor belt discharging into the trommel above the bunkers.

MEN AT WORK



For excellent service at the Jacksonville Na... Air Station, officers of construction co... panies received Meritorious Civilian Servi... Badges awarded by the U. S. Navy Bur... of Yards and Docks. Pictured are, left ... right, CAPT. ARTHUR GAVIN, GEORGE ... HODGES, president Duval Engineering ... Contracting Co., LT. COMDR. EARL ... THOURIN, GEORGE D. AUCHTER, pres... dent of the George D. Auchter Co., L... COMDR. ROBERT E. CROSSEN, and JOH... E. DAVIS, vice-president of Batson-Cook C...

At a point where repairs were under way at a break in a power house canal of the Bolivian Power Co. in the Andes are: H. G. MICHELL, manager of the division; DOMINGO KUSAVIK, construction foreman; ERNESTO CHAVEZ, operating superintendent of power plants; and J. A. INSLEE, civil engineer and general manager.



As vice chairman and executive officer of th... new Departmental Water Resources Commi... tee of the Department of the Interior WIL... LIAM G. HOYT maintains liaison with othe... federal agencies engaged in development o... water resources.

Watching the placing in operation of a rebuilt 8 mgd. Holly steam pump at the Ft. Worth, Texas, city water works are: right, FRED KING, superintendent of pumpage; center, SAM H. BOTHWELL, city manager, and left UEL STEPHENS, superintendent.

EDWIN S. MELSHEIMER (left), an engineer at the U. S. Waterway... Experiment Station, Vicksburg, Miss., explains the operation of the Es... Dam model to BRIG. GEN. MAX C. TYLER, president of the Mississipp... River Commission and Division Engineer, Lower Mississippi Valley Divi... sion, while G. H. MATTHES, director of the Station, looks on.

Michigan State Highway engineers are caught supervising construction on the nearly completed Detroit Industrial Expressway. In the left picture, SCOTT BAKER (hands in pockets), acting construction engineer, talks with H. J. CONROY (left) and PAUL EUBERHORST (right) co-supervisors of bridge construction. Shown at the right are: (Left to right) L. D. ABBEY, bridge project engineer, R. J. GLEASON, soils engineer; and A. W. KIRCHHOFF, road project engineer.

...ree officers of a Naval construction regiment shown here as they were ...hen ready to move forward are, from left to right, COMDR. W. W. ...TUDDERT, Midland, Tex.; LIEUT.-COMDR. H. D. BURNUM, Decatur, Ala., ...d LIEUT. (jg) J. D. HAGGETT, North Edgecomb, Me. This regiment ...t up headquarters under the regularly spaced trees of a coconut planta... ...on and whitewashed the bases of all the tree trunks, thereby creating an ...mosphere of neatness. This plan was later adopted by other camps.

Brig. Gen. J. S. BRAGDON (seated), division engineer, South Atlantic division, U. S. Engineers, confers with Lt. Col. A. V. SHELTON (left), assistant chief of the engineering division and Lt. Col. W. Z. BANCROFT, his executive officer. Few divisions of the Corps of Engineers, if any, have had a bigger war construction program than General Bragdon's.

...OMDR. JAY S. LELAND (left), of Belt, Mont., O. in C. of a ...ival construction battalion, and LIEUT. JOHN N. SPAULDING, ... San Francisco, one of his aides, were conferring in front of a ...ldozer somewhere in the Pacific when this picture was taken ...rly this year.

DANIEL L. McHUGH (center), superintendent for H. E. Wolfe Construction Co., general contractor on runway extensions at Warner Robins Field, Macon, Ga., gets more information from MAJ. EDGAR B. BOYNTON (left), resident engineer for U. S. Engineers, and LT. ROSSER D. ELKINS, chief of operations.

Private construction rise is reported by WPB

Private new construction in the United States rose slightly during July, 1944, showing a 4 percent gain over June, 1944, according to the War Production Board. However, a 5 percent decline in publicly financed activity caused total construction in July this year to drop about 2 percent. Total new construction begun during July amounted to $320,000,000, a decline of 53 percent from July, 1943, according to preliminary figures released this week by the WPB. Of this amount, $193,000,000 fell in the category of publicly financed construction and $127,000,000 was for private account.

In comparison with July a year ago, publicly financed construction fell 64 percent while the decline in privately financed construction was 11 percent. The increase in private construction was due to seasonal factors, while the decrease in public construction was attributed to a falling off of military and war plant construction. It is expected that total construction will level off slightly during the summer and show a decrease in the final quarter of 1944, WPB reported.

Housing construction as a whole was just 2 percent under the June level, privately financed housing construction showing a mild increase and publicly financed housing activity continuing to decline. All other types of construction showed the expected seasonal increase.

For the year 1944 as a whole, total construction activity is expected to be about $3,550,000,000 or 54 percent less than in 1943. The sharpest decline is expected to occur in the field of public construction activity with a drop of 65 percent from 1943, while private construction for the year is expected to drop about 10 percent.

The above figures, both actual and estimated, are exclusive of repair activity and are not comparable to those of other government compilations including repairs, WPB pointed out.

• • •

Reclamation office moves to Salt Lake City

Offices of Region 4 of the U. S. Bureau of Reclamation have been moved from Provo, Utah, to Salt Lake City. Under the decentralization plan for the Bureau of Reclamation put into effect last year (ENR, Sept. 23, 1943, p. 445), the office for Region No. 4 was to be at Salt Lake City, but the director named for the district, E. O. Larson, was then construction engineer in charge of the Provo River project. Consequently, the offices were established temporarily at that point.

WPB lifts restrictions on some equipment

Restrictions on the sale of 26 of construction equipment were moved by the War Production B on July 24, and the administrati Order L-192 simplified.

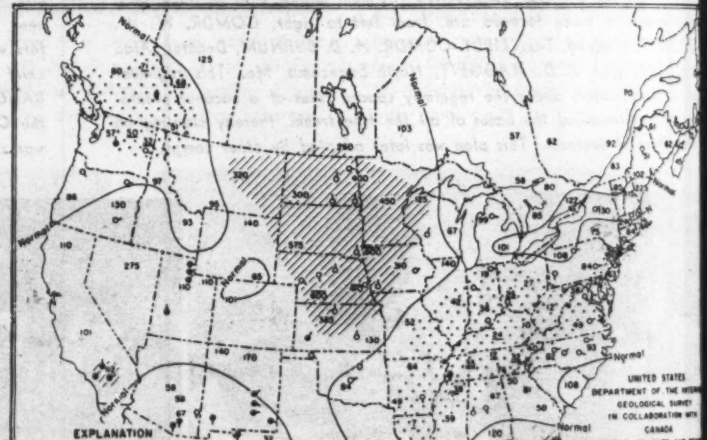
The 26 types of equipment that been transferred from Schedule Schedule B are: Angledozers and fications; contractors' rotary bro concrete buggies and carts; con handling chutes; concrete surf machines, highway type; constru material conveyors, portable belt and for portable plants; contra and material handling derricks, and stiff leg stationary type; disks, wheel mounted and harrow for construction work.

Also blade ditchers; rock dri machines and modifications, hand or portable mounted (except ele coal and core drills); self-prop finegraders and subgraders; finis and rodding machines for wet concr concrete road forms; graders, u truck type; grapples, rock type; hammers; portable concrete hopp aggregate pulverizer mixers; cable ing plows; snow plows (for mou on tractors of 25 horsepower or le road rippers; rollers; tamping sheepsfoot; scarifier, complete chines, not attachments, and con placing and material elevating to

Stream flow decreases in East and Northwest in July

Marked decreases in stream flow in the eastern part of the United States and in the Columbia River Basin were noted in July and the general drought which earlier in the year had resulted in subnormal stream flow and lowered groundwater levels throughout the Atlantic coastal states spread westward to embrace Louisiana, Arkansas, Mississippi, Tennessee, Kentucky and Indiana, according to the Geological Survey. The area of deficient stream flow in the central East now embraces all or major parts of eleven states, ranging from Louisiana to northern New Jersey, but centering in Tennessee, Kentucky and Ohio.

In the Far West the stream-flow deterioration in the important hydropower-producing region of Washington and British Columbia, especially in the Columbia River Basin, was noted. It now appears that the Columbia River will fall near, if not below, that of 1926, the lowest runoff in a 66-yr. record. In Arizona, summer storms, which ordinarily start in July have occurred only to a limted extent, making this the fifth driest July in 30 years.


Normal
EXPLANATION
Deficient stream flow
Excessive stream flow
Greater than any percentage previously recorded during July
Less than any percentage previously recorded during July
Month-end ground-water level in observation well
High
Normal
Low
Wells in formations heavily pumped shown by solid circles
All numbers are percent of normal (median or mid-value) stream flow for month of July
UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY IN COLLABORATION WITH CANADA DEPARTMENT OF MINES AND RESOURCES DOMINION WATER AND POWER BUREAU
JULY 1944

In contrast to the areas of droughts stream flow averaged four times normal for July in a broad area extending northward from Kansas to North Dakota. The excessive runoff is due as much to the carry-over effect the record-breaking floods in Iowa Nebraska in June as to normal above-normal rains that occur d the month of July.

nstruction Communiques

Engineering news from the battlefronts

—In a wireless dispatch to the York "Times," Robert Trubull "Engineers following infantry sed shovels and bulldozers to carabao trails into motor roads t broad highways through head- wordgrass and even across moun- where only jeeps could go. e march across Guam to the sea magnificent achievement in the ent of troops over strange and ingly difficult terrain. llowing the Army, Mac R. John- The United Press and I rode a art way on a road so new that reaching its end we met coming he bulldozer that had made it. It erated by Arthur C. Riley, Army er, of Cherokee, Ala. With Lieut- Thomas B. Manuel of Fort Lauder- Fla., regimental executive officer, de the rest of the trip in a jeep by Pfc. Joseph Sugalia of 102 Eighty-second Street, New York. e can take a jeep anywhere a man go. On reaching one razorback crest was hardly as wide as the with a 300-ft. drop on one side and eet on the other, Colonel Manuel, on and I got out and walked, but harged across and met us on the side."

y—The 48th Engineer Combat lion and the 235th Engineer Com- Battalion have been cited by the anding General of the Fifth Army outstanding performance of duty ion against the enemy during the lt on Mount Porchio, Italy, be- January 4 and 8, 1944."

h battalions were commended not for performing "their normal engi- ng tasks under fire from a fiercely ing enemy," but also for attacking nfantry during bitter fighting to e the objective." The courage and ng determination exhibited by the rs and men of these engineer bat- s, according to the citation, "were factors in the successful accom- ment of the task force mission, and performance reflects the heroic ions of the Corps of Engineers."

her engineer units whose personnel titled to wear the Distinguished Badge include the 43rd, 46th, 91st 6th Engineer Regiments, the 576th 585th Engineer Dump Truck Com- s, Company D, 50th Engineer Regi- the 114th Engineer Combat Bat- n and Company B of the 116th neer Combat Battalion, Company A, 803rd (Aviation) Engineer Battalion and the 808th Engineer Battalion Aviation.

Normandy—In a dispatch to the Chicago "Daily Tribune," John Thompson, war correspondent, described in detail the successful operations of U. S. Army Engineers in using the locks of the Vire River to expedite bridge construction on that battlefront.

"Speedy construction of a bridge located just below the junction of the Vire River and the Taute-Vire Canal, below Isigny, was accomplished by first raising the locks, making it easier to erect a floating ponton bridge, which was replaced later by a high trestle bridge. Farther down the river, at LeMeauffe, the engineers lowered the gates, raising the water level of the dam by 8 ft. After building a floating bridge they constructed trestles beneath it and threw a heavier bridge across the river.

"The Army Engineers in this corps area have built 11 major bridges from Carigny south to Conde-sur-Vire, frequently requiring bridge reconnaissance surveys to be made ahead of the advancing doughboys. Recently, between dusk and dawn, they hacked two routes through the mass of rubble that once was St. Lo, cleared three roads of mines and bridged the Vire River three times for other divisions hurrying into action."

Southwest Pacific—Col. Edward S. Bres, former New Orleans consulting and contracting engineer, has been appointed commanding officer of one of General Douglas MacArthur's largest bases, says word from New Guinea.

For four months previous to his new assignment Colonel Bres was in charge of the regulating system, controlling all transportation in the theater of action.

Colonel Bres is a graduate of the Tulane University school of engineering. He served with the A.E.F. in World War I and was again ordered to active duty in April, 1941. He has been abroad for more than two years.

Chicago—An average daily procurement volume of about $2,000,000, involving some 14,000 items, is required to outfit the Navy's construction battalions (Seabees) in every part of the world. The Chicago organization, said to be an outstanding example of close co-operation between civilians and Navy personnel, is the "brain" of the huge supply setup, says Gene Morgan, writing in the Chicago "Daily News."

The Chicago headquarters directs the forwarding of completed and scientifically-packed supplies from factories and laboratories to four advanced base depots on the Atlantic, Pacific and Gulf coasts for global shipment. This is necessary in order to make each Seabee battalion completely self-sustaining when it lands on Island "X."

Press Assn. Photo

Bulldozer in van of Guam invasion

Score another for the ubiquitous American bulldozer. Here it is plowing out a road on the beach of Guam to facilitate landing operations when U. S. Marines invaded the Jap-held American Island in the drive to recapture it, which was carried out with "blitzkrieg" speed. Part of the landing flotilla is seen in the background.

News of the engineering schools

Adam V. Millar, assistant dean of the college of engineering, University of Wisconsin, Madison, Wis., who will retire from active duty September 1 was honored recently at a dinner by his colleagues of the faculty. He was graduated from the college of engineering, University of Illinois in 1897, and after preliminary teaching duties, served on the engineering staff of the University of Illinois in 1901-02, joining the engineering faculty of the University of Wisconsin in 1902.

Dean S. S. Steinberg, head of the College of Engineering at the University of Maryland, has been appointed engineer adviser to the State Aviation Commission of Maryland, it has been announced by Charles Buck, commission chairman.

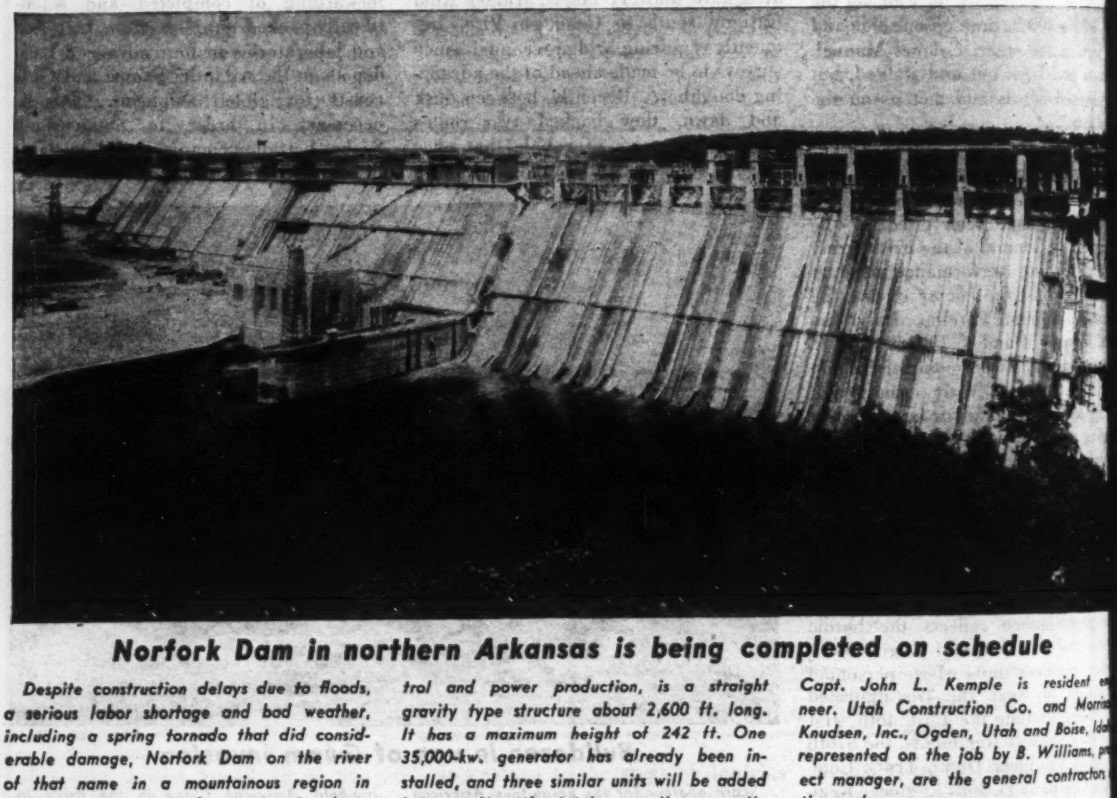
Earnest Boyce has accepted appointment at the University of Michigan as professor of municipal and sanitary engineering in the College of Engineering filling the vacancy caused by Prof. W. C. Hoag having reached the retirement age of 70. Professor Boyce has also been appointed professor of public health in the School of Public Health.

Professor Boyce was graduated in civil engineering at Iowa State College. He took the professional civil engineering degree there and has a master of science degree in sanitary engineering from Harvard. During World War I he was commissioned in the Coast Artillery and saw service in France. In 1920 he went to the University of Kansas as assistant engineer for the State Board of Health. In 1924 he was appointed chief engineer and director, division of sanitation, Kansas State Board of Health, and later, professor of sanitary engineering.

Since 1941 he has been on leave of absence as water supply consultant to the Quartermaster General and, later, as senior sanitary engineer for the U. S. Public Health Service.

A reorganization of the departm of mechanical engineering at the U versity of Toronto, due to the retirem of Prof. R. W. Angus and the promot of Prof. E. A. Allcut to head the dep ment, places Prof. G. Ross Lord, ass ate professor, in charge of research instruction in hydraulics. Profe Lord was graduated at Toronto in 19 later earning his S.M. degree at Mas chusetts Institute of Technology and degree of Ph.D. at Toronto. Llewel E. Jones becomes assistant professo hydraulics by transfer from the dep ment of engineering physics. Dr. Jo is a graduate of the University of Ma toba and received his master and doc degrees at Toronto. Both Lord Jones have been engaged at vari times by the Hydro-Electric Power C mission of Ontario on hydraulic stud and investigations.

An opportunity for engineers in w industries to fit themselves for p types of work under reconversion w be offered during the coming year the Cooper Union school of engineeri New York, it is announced by De George F. Bateman. The school w give advanced evening courses.



Norfork Dam in northern Arkansas is being completed on schedule

Despite construction delays due to floods, a serious labor shortage and bad weather, including a spring tornado that did considerable damage, Norfork Dam on the river of that name in a mountainous region in northern Arkansas is being completed on schedule. The storage of water for power production was begun in April, 1943.

The dam, which is planned for flood control and power production, is a straight gravity type structure about 2,600 ft. long. It has a maximum height of 242 ft. One 35,000-kw. generator has already been installed, and three similar units will be added later, making the total generating capacity 140,000 kw.

Construction is being directed by the Little Rock, Ark. district, U. S. Army Engineers, Capt. John L. Kemple is resident engineer. Utah Construction Co. and Morrison Knudsen, Inc., Ogden, Utah and Boise, Ida represented on the job by B. Williams, pr ect manager, are the general contractors the work.

For full details of the construction meth which were followed, see ENR Feb. 10, 19 Vol. p. 187.

MEETINGS

National

ERICAN PUBLIC WORKS ASSOCIATION, an- congress, Hotel St. Paul, St. Paul, n., Sept. 24-27.

ITUTE OF TRAFFIC ENGINEERS, 15th an- meeting, Sherman Hotel, Chicago, Ill., 1-4.

ERICAN PUBLIC HEALTH ASSOCIATION, ad wartime public health conference 73rd annual business meeting, Hotel nsylvania, New York, N. Y., Oct. 3-5.

Regional and Local

NSYLVANIA WATER WORKS OPERATORS' OCIATION, eastern Pennsylvania section, umbia, Pa., August 28-29.

THERN MICHIGAN COUNTY ROAD COM- SIONERS' ASSOCIATION, annual meeting, illac, Mich., Sept. 7-8.

TH DAKOTA WATER AND SEWAGE WORKS NFERENCE, 16th annual convention, City ditorium and World War Memorial lding, Bismark, N. D., Sept. 12-13; tly with the NORTH DAKOTA LEAGUE of UNICIPALITIES.

W ENGLAND SEWAGE WORKS ASSOCIATION, meeting, Hotel Bancroft, Worcester, ss., September. 13.

UTH DAKOTA WATER AND SEWAGE WORKS NFERENCE, annual meeting, Lincoln tel, Watertown, S. D., Sept. 19-20.

W ENGLAND WATER WORKS ASSOCIATION, ual meeting, Poland Spring House, Po- d Spring, Maine, Sept. 19-22.

CKY MOUNTAIN SECTION, AMERICAN WA- WORKS ASSOCIATION, annual conference smopolitan Hotel, Denver, Colo., Sept. 22.

Cancellations

The fall meeting of the New York Sec- n, American Water Works Association, been cancelled.

The annual meeting of the North Caro- League of Municipalities, scheduled Aug. 23-25 at Winston-Salem, N. C., been cancelled.

The 1944 annual convention of the North olina Section, American Water Works ociation, and the North Carolina Sewage orks Association will not be held, accord- g to a resolution adopted by the Board Trustees on July 25.

The 1944 annual conference of the West- n Pennsylvania Section, American Water orks Association, and the Western Penn- lvania Operators Association, scheduled Pittsburgh, Pa., Sept. 13-14, has been ncelled by action of the officers of the ction at its meeting on Aug. 8.

Port Chicago depot to be greatly enlarged

Port Chicago, Navy ammunition depot on San Francisco Bay leveled by an explosion in July, is not only being rebuilt but will be enlarged to the extent of 5,430 acres at a cost of about $19,932,900.

Land to be added to the depot will be used mostly for storage space and a railroad will be constructed connecting the area with the port where additional waterfront facilities will be built. Also planned for construction are magazines, railroad overpasses, railroad classification yards and industrial and personnel buildings.

Kansas City, Mo., office of FPHA is abolished

After having handled appropriations of $114,000,000 in its 6-state area the Kansas City regional office of the Federal Public Housing Authority was abolished August 1.

E. V. Gauger, regional director, returns to Washington, D. C. Hereafter the states of Kansas and Colorado will be served through the Fort Worth office; Nebraska and Missouri through Chicago; Utah through San Francisco; and Wyoming through Seattle. The most important project originating in the Kansas City office was the large community housing project at Wichita.

JOBS OF THE WEEK

ORDNANCE PLANT, St. Paul, Minn.

Fegles Construction Co., Minneapolis, has been awarded contract by the U. S. Engineers, Omaha, Neb., for the design and construction of several one-story buildings to expand an ordnance plant on Como Ave., S.E. Estimated cost of work is $3,000,000.

RUNWAYS, Glynco, Ga.

Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded a $1,080,572 contract for three runways, taxiways and a parking apron at Naval Air Station to H. E. Wolfe Construction Co., St. Augustine, Fla.

ADVANCE BASE DEPOT, Tacoma, Wash.

Henrick Valle Co., Seattle, Wash., has been awarded a $1,996,000 contract for the construction of an advance base depot by Bureau of Yards & Docks, Navy Department, Washington, D. C.

HANGAR, Dorval, Que.

Byers Construction Co., Ltd., Montreal, Que., received a $750,000 contract for the construction of a hangar and lean-to from the Department of Munitions & Supplies, Ottawa, Ont. Additional work expected to exceed $500,000 was awarded to Dibblee Construction Co., Ltd., Montreal, Que. J. Schofield, Montreal, is the architect.

HOUSING, Royal Oak, Mich.

Kuhlne-Simon Associates, Rantoul, Ill., has been awarded the contract for a $1,370,000 temporary housing project by Public Housing Authority, Cleveland. O. Winn and P. Brezner, Detroit, Mich. are the architects.

BUILDINGS and SERVICES, Alameda, Calif.

Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded a $1,157,800 contract for miscellaneous buildings and services at the Alameda Naval Air Station, to Dinwiddie Construction Co., San Francisco, Calif.

ETHYL CELLULOSE PLANT, Hopewell, Va.

J. Kennon Perrin Co., Richmond, has been awarded a contract to construct an ethyl cellulose plant for the Hercules Powder Co., Wilmington, Del. Cost figures are not available, but the job is of large size.

ADMINISTRATION BUILDING, Chicago, Ill.

Coath & Goss, Inc., Chicago, Ill., has been awarded contract for a two-story, 135x600-ft. administration building by the U. S. Engineers, Chicago, Ill. Estimated cost is $1,500,000. Skidmore, Owings & Merrill, Chicago, Ill., are architects and Douglas Aircraft Co., Park Ridge is the operator.

HOUSING, Chicago, Ill.

Welso Construction Co., Chicago, Ill., will construct a group of two-story residences in accordance with a $1,294,845 contract awarded by the Public Housing Administration, Chicago, Ill. Loebl & Schlossman, Chicago, are the architects.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 13.

OBITUARY

Russell Hinman Hunter, 64, executive vice-president of Starrett Brothers & Eken, New York construction company, died Aug. 10.

Mr. Hunter was born at Fort Laramie, Wyo., a son of the late Brig. Gen. George A. Hunter, USA. He had been associated with Starrett Brothers for twenty-four years.

He was a former president of the Mason Building Association of New York City, a member of the executive committee of the Building Trades Employers Association, and of the executive committee of the New York Building Congress. He held membership in the Metropolitan Building Association.

Arthur Richard Nielsen, 57, Salt Lake City, Utah, civil engineer, died July 30. Mr. Nielsen, who recently served with the Army engineers, was graduated from the University of Utah in 1911 and subsequently was employed by the state road commission.

Lieut. Harold C. Becker, former junior highway engineer for Peoria, Ill. District 4, was killed May 7, 1944, on a bombing mission in Europe. Since leaving the department on March 14, 1942, he had served as navigator in the Army Air Corps and had completed 23 successful bombing missions.

2d Lieut. Joseph W. Gresham, formerly engineering assistant in Springfield, Ill., District 6, was killed in action recently. He had been granted leave from the maintenance department of the state highway office, December 1, 1940, to join the Army.

Ralph J. O'Rourke, civil engineer, 57, Denver, Colo., died Aug. 5. He had been in ill health since completing a construction project for the War Relocation Authority at Amanche, Colo. Mr. O'Rourke was former president of the Colorado Society of Engineers and former chairman of the Colorado board of engineer examiners. From August, 1940 to March, 1942, he was regional engineer for the National Youth Administration, with headquarters in San Francisco.

Thomas W. Rock, 92, a retired and once prominent building contractor, died recently in Jacksonville, Florida.

Verne Leroy Havens, retired construction engineer, died Aug. 12 after a long illness. He was 63 years old.

For the last six years of his active career Mr. Havens was employed by the Public Works Administration and served as project engineer for the $35,000,000 "little TVA" irrigation and power project at Hastings, Neb. Previously he had been financial examiner in PWA's Washington headquarters and an engineer examiner at its San Francisco branch.

For twenty years, until 1929, Mr. Havens headed his own development company, Obras, Inc., which operated from a New York headquarters to handle construction projects in South and Central America.

He planned or constructed many transportation systems in Latin America, including railway lines and city transit systems. Until he became ill four years ago he was a member of the Pan-American Railroad Commission.

Mr. Havens was the founder and editor for a time of "Ingenieria Internacional," Spanish-language engineering magazine. He was the author of several technical books, among them a Spanish text on railway engineering.

He was a life member of the American Society of Civil Engineers.

Berthold F. Hastings, district engineer of the American Institute of Steel Construction, Inc., died at Philadelphia, Aug. 11 after an illness of two weeks.

Mr. Hastings formerly taught engineering at Yale, Carneigie Institute of Technology and the University of Pennsylvania, and for a time was connected with the United States Reclamation Service. He also had been associated with the H. G. Balcom engineering firm in New York.

Royal D. Edsell, civil engineer, died at Pelham Manor, N. Y., Aug. 13.

Mr. Edsell was formerly associated for fifteen years with Hugh L. Cooper, well known consulting engineer. He aided in the construction of the Keokuk Dam on the Mississippi, and at his death was president of the Keokuk and Hamilton Bridge Company.

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Utah has a $30 million road program for 3 years

Anticipating enactment of a federal bill appropriating $500,000,000 a year for three years to states for road building, Utah's road commission is working on plans for a $30,000,000 program to reconstruct and modernize 495 miles of highway, it announced recently.

Utah, which would spend about $4,800,000 a year as its share of the project, has completed plans on work estimated to cost $2,000,000. Preliminary engineering costs for the program, about $460,000, will be shared by the state and federal government.

State management of CVP is now being studied

Preliminary study on state operation of California's Central Valley Project (*ENR* July 20 '44 p. 61) revealed that two contracts calling for eventual state operation of the project had lapsed and that no contract is now in force between the government and the state authority.

Such was the report of State Engineer Edward Hyatt, authorized by the State Water Project Authority to report on the feasibility of state management of the CVP. The study was undertaken following recent charges that Secretary of the Interior Harold L. Ickes' "social ideas" were delaying construction of the huge project.

Provisions of the California Central Valley Project Act imposed no legal limits on federal procedure in respect to the project and the government now occupies a dominant position as far as construction and operation are concerned, Hyatt said.

When legal opinions on California's power to contract with the federal government can be obtained, the authority is expected to authorize Hyatt's proposed $5,000, three-month study on possible state control of the project.

Attempt to gain title to the CVP could be made through congressional action, Hyatt said. An alternative plan would be to contract with the Department of the Interior for state management but with title to be retained by the government.

WEEKLY CONSTRUCTION SUMMARY

CONTRACTS

Continental U. S. Only
(Thousands of Dollars)

	Week Ending Aug. 19 1943	Aug. 10 1944	Aug. 17 1944
Federal	$29,570	$24,362	$31,995
State & Municipal	4,758	7,301	7,540
Total public	$34,328	$31,663	$39,535
Total private	7,320	7,844	2,800
TOTAL	$41,648	$39,507	$42,335
Cumulative 1944	(33 weeks)		$1,164,051
1943	(33 weeks)		$2,183,450

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	1943 33 Weeks	Cumulative 1944 33 Weeks
NON-FEDERAL	$271,517	$318,446
Corp. Securities	15,408	86,845
State & Mun.	95,976	92,141
RFC Loans	9,000	56,460
FPHA Loans	3,133	....
REA Loans	20,000	20,000
Fed.-Aid Hwy.	128,000	63,000
FEDERAL	$2,653,838	$1,263,800
TOTAL CAPITAL	$2,925,355	$1,582,246

ENR INDEX NUMBERS

Index base=100		1913	1926
Construction Cost	Aug. '44	300.42	144.41
Building Cost	Aug. '44	236.09	127.62
Volume	July '44	114.	50.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.
ELSIE EAVES, Manager *SCOTT McLEOD, Statistics* *J. A. MAHONEY, Reports*
(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Fla., Jacksonville—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., water treatment and storage facilities, NOY 10521. $700,000. CD 8/2.

Md., Baltimore—City, City Hall, construct- Dundalt Pump. Station on Broenning y., $330,000.

Mass., Westfield—City, A. B. Long, mayor, ity Hall, replacing 2 in. mains with 10 in. ains Old Holyoke Rd. $15,000.

Mont., Fairfield—City, bids soon water s., incl. elevated steel storage tank, elec- ic pumps, $75,000. Corwin & Co., 413 edical Arts Bldg., Great Falls, engrs.

O., Columbus — City, water purification lant on north side of city, over $15,000. ite has been purchased. P. W. Maetzel, ity engr. CD 1/27—ENR 2/3.

O., Galion—Dpt. P. Wks., City Hall, re- ected bids 3/4 Sect. 3, water tr. plant. 50,000. Will readvertise. P. A. Uhlmann, 58 N. High St., Columbus, engr. CD 6/14 —ENR 6/22.

O., Salem—F. K. Wilson, dir. P. Service, ity Hall 3 m.g.c. water storage reservoir nd necessary piping. $110,000. F. S. Barck- off, City Hall, city engr. CD 7/12—ENR /10.

R. I., Fiskville—Pawtuxet Valley Water o., 1071 Main St., West Warwick, steel andpipe, water supply storage. Jenks & allou, 260 Industrial Trust Bldg., Provi- ence, engrs.

†Tex., Dalhart—U. S. Eng., 416 Wright Bldg., Tulsa, Zone 2, Okla., addnl. water acilities, Sol. No. 34-066-45-4. Over $25,000.

Tex., Handley—Tarrant Co. Water Control Imprv. Dist. No. 2, c/o Dr. W. C. Foster, Handley, water well, etc., $18,000. Freese Nicholas, Capps Bldg., Fort Worth, engrs.

Tex., Houston—City, 20 in. c.i. water mains Buffalo Dr., Thompson and Jackson Hill Sts. Over $25,000. G. L. Fugate, city engr.

Tex., Vernon—W. T. Waggoner Estate, Waggoner Bldg., Fort Worth, 20 mi. 8 in. .i. water pipe line to cattle ranch zone. 45,000.

Ont., Sarnia—City, laying 1 mi. watermain o supply services in Sarnia Twp. $18,000. . C. Monteith, c/o City, engr.

BIDS ASKED

Bids Asked August 24

Wis., Kaukauna — Kaukauna Utilities Comn., Kaukauna, drilling 1 or 2 wells, incl. shooting wells, furnishing, installing testing machinery, testing wells. Mead, Ward Hunt, 550 State St., Madison, 3, engrs.

Bids Asked September 5

Ga., Columbus—Bd. City Comrs., W. J. Wood, chn., filter plant addn. Wiedeman & Singleton, Candler Bldg., Atlanta, engrs.

LOW BIDDERS

Louisiana—East Jefferson Water Works Dist., Jefferson Hy. and Armon Rd., Gretna, exten. pier and suction lines and new crib for WW intake exten. into Mississippi River, Jefferson Parish, from John Riess, Carondelet Bldg., New Orleans, $22,600. Bids 8/8. CD 8/2.

Wash., Seattle—City, County-City Bldg., Zone 4. Aug. 10, watermain from W. Dravers to 34 Ave., W., from M. Moschetto, 5501 13 Ave., S., $24,036. C. L. Wartelle, County-City Bldg., engr.

CONTRACTS AWARDED

†Me., Lewiston—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., 25, D C., water sys., exten. fire protection, Naval Auxiliary Air Base, Spec. 14414 to Simonds Constr. Co., Inc., 12 Monument Sq., Portland, $32,186. Bids 8/10. CD 8/7.

Mass., Norton—Town, Water Dpt., Town Hall, watermain and pumping facilities, to D. L. Maher Co., 38 Brattle St., Cambridge. Est. $16,500. CD 3/29—ENR 4/6.

Mo., North Kansas City—City, M. P. Hatcher, dir. Water Dpt., City Hall, imprv. water softening plant to Fogel Const. Co., Lathrop Bldg., SE corner 10 and Grand Sts., Kansas City, Mo., $66,000. BA 8/3.

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect-Engineer-Management type of contract

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply — **Sewers, Waste Disposal** — **Bridges** — **Streets & Roads** — **Earthwork, Waterways** — **Public Buildings** — **Commercial Buildings** — **Industrial Buildings** — **Latin America** — **Unclassified**

Stages Reported

PROPOSED: (except Streets & Roads):
BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);
LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.
CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.
Dates shown are of issue in which last previous report was published.

†S. C., Florence—City, R. F. Zeigler, mayor, City Hall, extending WW sys., S.C. 38-249, to Layne-Atlantic Co., Cromwell Rd. and Flanders Ave., Norfolk, Va., $35,000. FWA. CD 7/19—ENR 7/27.

Ont., Toronto—Twp. of Scarboro Pub. Utilities Comn., Contr. A, filter plant bldg. and basin, to Malvern Constr. Co., Ltd., 648 Danforth Ave., $38,000; Contr. B filter equip., to Francis Hankin & Co., Ltd., 57 Bloor St., W., $31,000. Bids Aug. 9. CD 7/21—ENR 8/3.

Ont., Toronto—British American Oil Co. Ltd., Royal Bank Bldg., 50,000 cu. yd. grading, laying extension of fire hydrant line, involving ½ mi. 8 in. watermain to Dow Const. Co. Ltd., 1109 Millwood Rd., Leaside. $40,000.

Que., St. Jerome — Municipality, c/o E. Martin, 230 Labelle St., watermains. Day Labor. $20,000. CD 6/13—ENR 6/15 under "Sewers".

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Los Angeles—Bd. Supervs. Los Angeles Co., Hall of Records, Los Angeles, 13,400 lin. ft. 6 and 8 in. vit. clay pipe sanitary sewer in Lavinia Ave., etc., $40,000. A. Jones, Hall of Records, co. engr.

Calif., Los Angeles—City Bd. P. Wks., City Hall, vit. clay pipe sanitary sewer in Noble Ave. and Moorpark Ave., $121,387; in Davana Rd. and Murietta Ave., $29,666. L. Aldrich, City Hall, city engr.

Conn., New Britain—City, Pub. Wks. Dpt., City Hall, sanitary and storm sewers in Dix Ave., Sherwood, Lester, 2nd., 1st, Vilbert and East Sts., Greenfield Dr. S. $109,770. Geo. Molleur, City Hall, engr. CD 6/16—ENR 6/22.

†Md., Annapolis — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., architectural and engineerings services by Whitman, Requardt & Associates, 1304 St. Paul St., Baltimore, sewage treatment plant and collection sys., Naval Academy.

★**Mo., Kansas City**—Jackson Co., D. W. Leonard, acting hy. engr., Court House, 12 and Oak Sts., Kansas City, Mo., sewer in area between State Line and Indiana Ave. and City Limits and 89 St. $1,500,000. Preliminary application filed with FWA.

†Pa., Fort Mifflin (sta. Phila.)—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architect engineering services by Ballenger Co., 15 and Chestnut Sts., Phila., storm sewer drain system, Naval Ammunition Depot.

R. I., Cranston—City, Municipal Bldg., disposal plant, addn. sewerage sys. $125,000. Fay, Spofford & Thorndike, 11 Beacon St., Boston, Mass., engrs. CD 7/31—ENR 8/3.

S. C., Charleston—City, installing drains and granite curbing in various streets preparatory to paving roads, $60,000. B. M. Thomson, city engr.

Tex., Texas City—E. A. Johnson, mayor, City Hall, vit. clay sewer lines, c.i. sewer lines, manholes, etc. Tex. 41-696. $141,000 Applying for FWA funds. J. J. Rady, Insurance Bldg., Fort Worth, engr.

Ont., Brantford—Municipality, sewage tr. plant. $40,000. W. Acres, Town Hall, supt. and engr.

Ont., Clinton — Municipality, sewers and sewage tr. sys. $50,000. A. E. Rumball, Town Hall, supt.

Ont., Deseronto—Municipality, complete sewerage sys. and sewage tr. plant. $50,000. S. C. Hughes, Town Hall, supt. and engr.

Ont., Huntsville—Town, A. Kellock, Jr., clk., making surveys sewerage sys. Armstrong, Wood & Co., 62 Richmond St. W., Toronto, engrs.

Ont., Oshawa—Municipality, sewage tr. plant. $40,000. Pub. Utilities Comm., Oshawa, engr.

Ont., Picton—Municipality, sewage tr. plant. $40,000. J. B. Dunkley, Town Hall, engr.

LOW BIDDERS

†Ill., Chicago—James M. Whalen, Sanitary Dist. of Chicago, 610 S. Michigan Ave., Aug. 3, vertical plate diffuser sys., Southwest Sewage Treatment Works, Contr. 44-40 (sw-p) from L. H. Prentice Co., 1048 W. Van Buren St., $27,920. CD 7/25—ENR 7/27.

La., New Orleans—Sewer and Water Bd., 526 Carondelet St., Aug. 3, furnishing, laying approx. 450 lin. ft. 12 in., 3,300 lin. ft. 8 in. concrete pipe sewers and 4,000 lin. ft. 6 in. concrete pipe sewer house connections, Contr. 153-S, from Boh Bros. Const. Co., 2400 Cypress St., $29,957. CD 7/27.

Md., Baltimore—Bd. Awards at office City Register, City Hall, Aug. 4, installing sanitary sewers, Bureau of Sewers Contr. No. 344, from L. A. Butler, Silver Spring, $191,-643. CD 7/27.

Md., Baltimore—Bd. awards, sanitary sewers, Constr. 346, from Square Constr. Co., 115 S. Haven St., $144,320; disposing of accumulated sewage sludge from Bach River Sewage disposal plant, from Frank Carrozza, 7 W. 25 St., $65,000. Bids 8/11 CD 8/4.

O., Ravenna—City, H. A. Akers, dir. Pub. Serv., City Hall, Aug. 4, Contr. 2, sewage treatment plant, 24x24 ft. pump house, aeration equip., sludge equip., sewer lines, from W. B. Gibson Co., 200 Chestnut Ave., Warren $156,922. CD 7/24—ENR 7/27.

O., Youngstown — City, garbage disposal plant, incineration furnaces from George Allen & Son, 205 E. 85 St., New York, N. Y., $51,507***installation from Emanuel Katzman Co., 2223 Ohio Ave., Youngstown, $45,-979***fdan., excav., etc., from Heller-Murray Constr. Co., 222 W. Rayen Ave., Youngstown, $29,332. CD 6/1—ENR 6/8.

SEWERS, WASTE DISPOSAL (Low Bidders, Cont'd.)

Pa., New Castle—City, U. J. Anderson, service Dir., City Hall, Aug. 3, Div. 1 3,300 ft. 48 in. and 130 ft. 36 in. rein.-con. pipe outfall sewer, Div. 2, effluent and by-pass sewer repairs from Garfield Const. Co., 11616 Willard Ave., Cleveland, O., $57,565. CD 7/25—ENR 7/27.

★**†Va., Newport News**—Federal Works Agency, 601 State Planters Bank Bldg., Richmond, Zone 19, Aug. 1, from Calnaught Contg. Co., Portsmouth, sewers, Va. 44-358, Div. A, $157,172; Div. C, $214,652; Div. D, $65,828; from A. Stanley Mundy & Co., Inc., 52 Main St., Woodbridge, N. J.; Div. B, $134,858. CD. 7/18—ENR 7/20.

CONTRACTS AWARDED

†Utah, Roy—Town, construct 27,000 lin. ft. 6 to 12 in. sanitary sewer, Utah 42-134-N, to Stroud-Seabrook, P. O. Box 218, Layton. $20,050. FWA. S. Margetts, Felt Bldg., Salt Lake City, engr. CD 6/7—ENR 6/15.

Ont., Ottawa—Dpt. P. Wks., Ottawa, sewage sys., and fire mains, etc., at Rideau Health and Occupational Centre near here, to M. J. Sulpher & Sons, Ltd., Renfrew, $56,207.

Que., Cap de la Madeleine—R. Morissette, mayor, sewers, St. Laurent, Notre Dame, Fusev and Ficheleau Sts., to J. C. Papillon, 1383 Laviolette St., Three Rivers, $50,400. CD 4/19—ENR 5/4.

Que., St. Jerome—Municipality, E. Martin, clk., 280 Labelle St., sewers, day labor. $30,000. CD 6/15—ENR 6/15.

Que., Ville La Salle (Postal Dist., Montreal)—Municipality, c/o A. Gravel, clk., Ville La Salle, sewers to Thomas Constr. Co., 5823 Terrebonne Ave., Montreal. Est. $112,000. A. Latour, Town Hall, engr.

BRIDGES

PROPOSED WORK

Pa., Phila. — Philadelphia Transportation Co., 1405 Locust St., 3 half crossing at grade where proposed terminal loop of street railway Route 37 (Chester Short Line) will cross southeast side Eastwick Ave. between 94 and 95 Sts. (unopened).

Ont., Little Current—Canadian Pacific Ry. Co., J. E. Armstrong, ch. engr., Windsor Station, bridge between Manitoulin Island and Mainland, via the Canadian Pacific Ry. Bridge. $300,000.

BIDS ASKED

Bids Asked August 22

Pennsylvania—State Dpt. Hys., Harrisburg, rein.-con. box culvert and surfacing approaches to structure .01 mi. U. S. Route 219, West DuBoise Ave., Dubois, Clearfield Co.

Bids Asked August 25

Illinois—State Div. Hys., Centennial Bldg., Springfield, 3 rein.-con. slab bridges and 1 rein.-con. girder bridge incl. two 23 ft., two 22 ft., two 42 ft. and two 57 ft. spans, Sect. 14R-B, S.N.-F. A. Project 251, F. A. Route 5, District 4, also two 33 ft. and one 45 ft. rein.-con. girder bridge on Sect. 15R-B, S.N.-F. A. Project 25 K(1), F. A. Route 5, Dist. 4, both McLean Co. W. W. Polk, ch. engr.

Bids Asked August 29

Florida—State Road Dpt., Tallahassee, removing present structure replacing with five 16 ft. span metal arch detour bridge on Rd. 20, at Alford, S. P. 5303-106, Jackson Co. J. H. Dowling, state hy. engr.

CONTRACTS AWARDED

Iowa—State Hy. Comn., Ames, 150x26 ft. bridge and 0.145 mi. pavement, FN 213, Cedar Co., to A. Olson Constr. Co., Waterloo, $30,810. Bids 8/8. CD 7/31—ENR 8/3.

Que., Grande Vallee—Province of Quebec, Quebec City, bridge approaches to Couture & Gagnon, Jonquieres, $46,000. E. Gothier, Dpt. Rds., Quebec City, engr.

STREETS AND ROADS

BIDS ASKED

Bids Asked August 22

Indiana—State Hy. Comn., S. C. Haddon, chr., Indianapolis, rein.-con. paving 3.993 mi. State Rd. 40, Dunreigh to Lewisville Contr. 2537; Henry Co., plans deposit $7.75; 2.627 mi. State Rd. 40, Straughn to Lewisville, Contr. 2538, Henry Co., plans deposit $5.75; 3.821 mi. State Rd. Straughn to Dublin, Contr. 2539, Henry and Wayne Counties, plans deposit $7.75. R. Bower, c/o owner, engr.

Bids Asked August 23

Iowa—State Hy. Comn., Ames, maintenance resurfacing 11.9 mi. Iowa 148 from Corning to Cass Co.; 3.5 mi. Iowa 95 from Carbon to Liow 148, M-4309, Adams Co.; 19.7 mi. Iowa 148 from Ahita to Adams Co.; 6.2 mi. Iowa 82 from Atlantic to Marne, M-4310, Cass Co.; 25.8 mi. Iowa 25 from Bayard to U. S. 6; 1.5 mi. Iowa 141 from Dallas Co. to Iowa 343; 5 mi. Iowa 17 from 2 mi. south Junction Iowa 17 and Iowa 141 to 5 mi. south, 1.3 mi. Iowa 161 from Springbrook State Park to Iowa 25, 0.3 mi. Iowa 271 from Vale to Iowa 17, M-4311, Guthrie Co.; 11.6 mi. Iowa 117 from Colfax to Iowa 64 M-1299, Jasper Co.; maintenance cover aggregate 450 cu. yd. in stockpiles on Iowa 25 from Greenfield to Orient, M-4312, Adair Co.; maintenance pavement reconstruction 1,311 sq. yd. pavement on U. S. 30 east and west of State Center, M-1300, Marshall Co.; 1,752 cu. yd. on U. S. 30 between Marshall-Tama Co. line and Iowa 212, M-1301, Tama Co.; maintenance culvert repair on Iowa 150, 7 mi. north of West Union, M-2237, Fayette Co.; on Iowa 48 north of Red Oak and on U. S. 34 6 mi. east of Red Oak, M-4299, Montgomery Co.; maintenance grading, Iowa 5 at west city limits of Fort Dodge, M-1302, Webster Co.; roadside erosion control 0.291 mi. on U. S. 169 approx. 3 mi. west of Badger, P-643, Webster Co.; 0.423 mi. on Iowa 5 west of Fort Dodge, P-676, Webster Co.; adding rein.-con. exten. and rein.-con. lining inside 15.5 ft. stone arch culvert on U. S. 67 in LeClaire, FN-55 C, Scott Co. F. R. White, Ames, state Hy. engr.

O., Cleveland—Comrs. Cuyahoga Co., F. Husak, clk., Court House, road resurfacing and widening Lake Shore and Lakeland Blvds. $99,500. J. O. McWilliams, Court House, co. engr.

Pennsylvania—State Dpt. Hys., Harrisburg, bituminous surfacing 1.10 mi. Hopewell Ave., in Aliquippa Borough, Traffic Route 980, Beaver Co.; widening existing pavement with native stone or crushed aggregate base 0.51 mi, and bituminous surfacing 36 ft. U. S. Route 219, Liberty Blvd. in DuBois, Clearfield Co.

West Virginia—State Road Comn., D. McClaugherty, secy., Charleston, surface treating 5.6 mi. Clarksburg-Goodhope Rd. (U. S. Rte. 19), Proj. DARM 41-A(1), Item 11; road mix surfacing 0.8 mi. Bridgeport-Meadowbrook Rd. (Secondary Rte. 24), Item 9, Proj. DARM 41-A(1); 2.8 mi. Jct. Sec. 29-Sardis and Sardis toward Olive Rds. (Secondary 7 and 22), Item 17, DARM 41-A(1); 1.73 mi. Bridgeport-McAlpin Rd. (W. Va. Route 73), Item 7, DARM 41-A(1), all foregoing in Harrison Co.; surface treating and penetration macadam paving 2.15 mi. Monongah-W. Va. Route 73 Rd, (Secondary Route 58), Item 18, DARM 41-A(1), Marion Co.; grading, draining, cement concrete paving 1.613 mi. Maitland- Big Four Rd. (US Route 52), FAP FA 309-B(3) and FA 309E(1), McDowell Co.

Bids Asked August 23

†Fla., Banana River—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., 25, D. C., paving 75,000 sq. yd. for project Baker, N.A.S. NOY 10446.

Bids Asked August 24

Ill., Woodstock—C. L. Tryon, supt. McHenry Co., County Bldg., bituminous surfacing C-4 Mod. 2.998 mi. 22 T 24T-MFT. Over $25,000.

Nebraska—State Dpt. Rd. Irrigation, S. G. Scott, engr., Lincoln, bituminous material surface course 0.7 mi. State Rd. 793, Mission Ave., in Bellevue, Sarpy Co.; concrete pavement 5,595 cu. yd., Union-Auburn, Patrols 13101, 13201, 13504; and 3,827 cu. yd. Plattsmouth-Union, Patrol 13503, both Cass Co.

Bids Asked August 25

Alabama—G. R. Swift, state hy. dir., Montgomery, grading, drainage, concrete paving, bridge, and removing structures 9.663 mi. on road from York to Livingston, FA Projects Nos. SN-FAP-389-B(1) and SN-FAP-76-ABC (2), Sumter Co.; 7.509 mi. road from Mississippi State Line to York, FAP Nos. SN-A-FAP-389-C(1) and SN-FAP-389-D(1), Sumter Co.

Illinois—State Div. Hys., Centennial Bldg., Springfield, concrete paving 5.24 mi. Sect. 15 R, S.N.-FA Project 25 K(1), F.A. Route 5, Dist. 4, also 7.72 mi. Sect. 14R, S.N.-F.A. Project 251 (1), F.A. Route 5, Dist. 4, both McLean Co. W. W. Polk, ch. engr.

Kentucky—State Dpt. Hys., Frankfort, grade, drainage low type surfacing 2.113 mi., Access road to Coal Mine beginning approx. 1 mi. west of corporate limit of Hazard on Curly Creek and extend., DA-RM 55, Perry Co.

Minn., Rochester—State Hy. Dpt., St. Paul, crushed rock surfacing, crush screen, load and haul 32,508 cu. yd. traffic-bound crushed rock wearing course, $35,000. Contractor to furnish material in place. O. L. Kipp, c/o Owner, ch. engr.

Bids Asked August 25

Tex., Alamo Heights—Town, 6116 Bway., Alamo Heights, San Antonio, asphalt levelling, double asphalt surface treating several streets. Over $25,000.

Bids Asked August 29

Florida — State Road Dpt., Tallahassee, reworking, widening existing lime rock base, constructing bituminous retread surface course, etc. 5.794 mi. Rd. 81, between Levy Co. line and State Rd., 5 in Dunnellon, S.P. 3615-102, Marion Co., $100,000; 4.434 mi. Rd. 361 between Rd. 149 and point in Pomano, S.P. $613-102, Breward So., $80,000; constructing concrete widening strips and bituminous retread surface course on 1.55 mi. Rd. 1, between Suwannee River and point 1.559 mi. west, S.P. 3502-105, Madison Co., 1.586 mi. Rds. 1 and 59, Jobs 3701-104, 3702-102 and 3705-104, Suwannee Co., $50,000; 6 in Ocala lime rock base with bituminous retread surface, etc., on 1.113 mi. Rds. 48 and 3, between Governors Creek and Atlantic Coast Line R. R. in Green Cove Springs, Clay Co., $35,000. J. H. Dowling, state hy. engr.

Bids Asked August 31

California—State Div. Hys., P. Wks. Bldg., Sacramento, grading, asphalt concrete paving 4.7 mi. hy. (X1-SD-199-A) Cord, Palm and W. Coronado Sts., San Diego Co. G. T. McCoy, state hy. engr.

Bids Asked September 1

Tennessee—State Hy. Dpt., Nashville, grading, drainage, paving 1.447 mi. beginning at 8 Ave., to east city limits, SN-F.A.P. 56-D (1) and SN-F.A.P. 56-C (3), Davidson Co.; 0.517 mi. Van Hook Street in Milan at First St. to Park Ave. at East city limits, SN-F.A.P. 284-B(1), Gibson Co.; 1,100 ft. storm sewer on Western Ave. and Ramsey St., adjacent to Southern Railway Overpass in Knoxville, F.A.G.M. 36-A(2) (off), Knox Co.

Bids Asked

Idaho—Commissioner P. Wks., Boise, rejected bids July 28, imprv. 4 mi. State Hy. 11, SAP No. 223-A(4), Clearwater Co. CD-8/1—ENR 8/3 under "Low Bidders."

Iowa—State Hy. Comn., Ames, rejected bids Aug. 8, imprv. roads in Shelby and Boone Counties. CD 7/31—ENR 8/3.

†La., Shreveport—U. S. Eng., 300 Bway, Little Rock, Ark., asphalt paving sub-depot area. Over $25,000.

Utah—State Road Comn., J. S. Evans, chr., Salt Lake City, received no bids 8.7 road mix bituminous surfacing 5.107 mi. state hy. between Kimball's Junction and Park City, Summit Co. CD 8/1.

Puerto Rico—Municipality of Vega Baja, plans constructing 8 kilometers of road. $135,000; Land Authority of Puerto Rico, San Juan, plans reforestation of 3,000 acres of land formerly belonging to Central Cambalache, $45,148. Insular Emergency Council, Dpt. Interior, San Juan, approved applications for above.

LOW BIDDERS

California—State Div. Hys., Sacramento, Aug. 9, imprv. 10 mi. Yolo and Colusa Counties, from W. C. Railing, 27 Lowell St., Redwood City, $47,357. CD 7/24—ENR 7/27.

D. C., Wash.—District Comrs., District Bldg., Aug. 11, covering various concrete roadways from Highway Engr. & Constr. Co., 7 and T Sts. N.E., $91,648. CD 8/7.

Illinois—State Div. Hys., Springfield, Aug. 4, imprv. 3.47 mi. Sect. 2 F.A.Rte. 30, Dist. 4, Marshall Co., from Collignon Const. Co., 910 Kahl Bldg., Davenport, Ia., $237,334***4.96 mi. Macoupin Co. from Concord Asphalt Paving Co., Hamel, $172,321***3.47 mi. Sect. 2 B, F.A.S. Rte. 30, Dist. 4, Marshall Co. and 5.65 mi. hy. Cook and Will Counties from Arcole-Midwest Corp., 221 N. La Salle St., Chicago, $39,749 and $126,671 respectively***7.25 mi. Grundy Co., from Walsh Oil Co., 72 S. Jefferson St., Joliet, $109,267***1.13 mi. Will Co., from Standard Paving Co., 30 N. La Salle St., Chicago, $109,880. CD 7/27.

Indiana—State Hy. Comn., S. C. Hadden, chn., Indianapolis, Aug. 8, from Wayne Paving Co., 1935 Lincoln Bank Bldg., Fort Wayne, imprv. 13.27 mi. hy., Contr. M-2528, Wells, Jay and Blackford Counties, $250,812, est. $295,065; 7.09 mi. State Rd. 27, Contr. M-2529, Adams Co., $119,227, est. $145,632; 14.09 mi. State Rd. 20, Contr. M-2531, $287,595, est. $343,556***from W. T. McDonald, 625 N. Temple St., Indianapolis, 1.9 mi. State Rd. 109, Contr. M-2530, $38,959, est. $42,630***from Rock Road Constr. Co., Frankfort, 6.2 mi. State Rd. 35, Contr. M-2532, La Porte Co., $127,328, est. $138,069***from Middle West Roads, Noblesville, 8.48 mi. State Rd. 56 and 50, Contr. 2533, Ohio and Dearborn Counties, $160,338; 9.03 mi. State Rd. 24 and 29, Contr. M-2534, White and Cass Counties, $188,498, est. $230,753***from Bituminous Materials Co., 13 St. and Ft. Harrison Rd., Terre Haute, 8.43 mi. State Rd. 42, Contr. M-2535, $75,160, est. $79,107; 5.87 mi. State Rd. 246, Contr. M-2536, Vigo Co., $54,810, est. $60,930. CD 8/1—ENR 8/3.

Louisiana—State Dpt. Hys., Baton Rouge, Aug. 9, imprv. 186.7 mi. Sabine Parish, from T. W. Kleinpeter, 4047 Hatcher Dr., Baton Rouge, $150,176; 132.9 mi. Vernon Parish, from Reynolds & Sutton, Roy Lilly, 1255 Ingleside Dr., and Barber Bros., Reymond Bldg., $108,741. CD 7/25—ENR 7/27.

Maryland—State Hy. Dpt., 108 E. Lexington St., Baltimore, Aug. 3, imprv. 0.511 mi. Howard Co., from J. H. Ensey, 1619 Ensey St., Baltimore, $116,678. CD 8/4.

Md., Baltimore—Bd. Awards, City Hall, Aug. 4, concrete paving alleys, Contr. No. 164, from Paramount Constr. Co., 3700 Gough St., $38,578. CD 7/27.

...STS & ROADS (Low Bidders, Cont'd.)

...ton, Boston—City, Aug. 3, imprv. Gainsborough St., etc., from John McCourt Co., ... Huntington Ave., concrete base $43,001, ...minous macadam base $39,653. CD 7/27.

...ton, Boston—City, Aug. 4, sheet asphalt ...ement in Center Sts., etc., from M. DeMatteo Constr. Co., Hancock St., Quincy, $35,-... CD 7/27.

...—State Hy. Dpt., Columbus, Aug. 8, ...rv. 12.68 mi. Morgan Co., and 5.67 mi. ...est Co., from A. W. Burns Constr. Co., ... Woodland Ave., Columbus, $36,128 and ...424 respectively, est. $36,158 and $28,881 ...spectively . . . 2.781 mi. Scioto Co., from ...ence Constr. Corp., 2344 Gallia St., Portsmouth, $49,960 est. $51,600 . . . 2.033 mi. ...ss Co., from The S. E. Johnson Co., 218 ...minal Bldg., Toledo, $58,067, est. $58,100 ...1.042 mi. Hamilton Co., from Scully Bros., ... Atlas Bank Bldg., Cincinnati, $85,255, ...$86,300 . . . 2.763 mi. Cuyahoga Co., ... The Allied Corp., 714 Keith Bldg., ...eland, $62,929, est. $67,300 . . . 18.3 mi. ...ence Co., from H. E. Calvin, Rathbone ... Marietta, $40,292, est. $51,259 . . . ...0 mi. Carroll, Columbiana and Jefferson ...nties, from S. B. Hull, P. O. Box 548, ...ver, Pa., $21,448, est. $41,959. Received ...bids 12.67 mi. Lucas Wood and Henry ...nties, est. $27,926; cancelled project ...rv. 6.1 mi. Williams Co. CD 8/2.

...k, Milwaukee—Dpt. P. Wks., Aug. 4, ...phalt paving N. Teutonia Ave., from Wm. ... Hunt & Co., 2808 N. Sherman Blvd., Zone ...$65,338. J. P. Schwada, city engr.

...sconsin—State Hy. Comn., Madison, ...6 imprv. 0.456 mi. Jefferson Co., from ...ns & Dolan of Wisconsin, Inc., 735 N. ...ter St., Milwaukee, $41,693. CD 7/28—... 8/1.

...NTRACTS AWARDED

...abama—State Hy. Dpt., Montgomery, ...rv. 11.775 mi., Pike and Barbour Counties, to J. F. Walters, Troy, $37,400. CD 7/19.

..., Montezuma—Bd. Superva. Poweshiek ... gravel and crushed stone surfacing ...ds, to L. J. Peters Constr. Co., 810 Walker Bldg., Des Moines, $60,435. Bids 7/31. ... 7/24.

...nsas—State Hy. Dpt., Lincoln, imprv. ...61 mi. No. 2633 ABC, Lincoln Co., to ...F. Reis, Natl. Bank Bldg., Topeka, $32,165. ...ds 7/7. Rejected bids July 7, imprv. hys. ...kinson, Marion, Ellsworth, McPherson and ...rrell Counties. CD 6/27—ENR 6/29.

...nnesota—State Hy. Dpt., District office, ...rginia, crush, screen, load and haul about ...000 cu. yd. gravel, to C. P. Roth, Brainerd, $30,353. Bids 7/10. CD 6/28.

...ion., Montevideo—A. C. Erickson, aud., ...ippewa Co., regraveling various sections ...unty roads, to A. W. Johnson, Montevideo, ...,947. Bids 7/10.

...ion., Wilmar—State Hy. Dpt., St. Paul, ...duction of mineral aggregate for traffic- ...nd gravel wearing course and for stock- ...s for Maintenance Div., crush, screen, ...d and hauling about 39,900 cu. yd. gravel, ...W. Zaske, Danube, $67,209.

...w Hampshire—State Hy. Dpt., Concord, ...reling 8.219 mi. Dead Diamond River ...ley Rd., Wentworth Location and Dartmouth College Grant, Coos Co., to F. W. ...ittcomb, North Walpole, $43,750, est. $46,- ... Bids 7/28. CD 8/2—ENR 8/10 under ...w Bidders".

...w Mexico—State Hy. Dpt., Santa Fe, ...rv. 8.679 mi. Santa Fe and San Miguel ...nties, to Brown Bros., 3525 N. 4 St., ...uquerque, $95,600; 15.3 mi. Harding and ...ax Counties, to Walter L. Denison, 321 ... Las Vegas, $104,441. Bids 8/11, award- ...1/11. CD 8/9.

...rth Dakota—State Hy. Dpt., Bismarck, ...rv., 0.5 mi. Hettinger Co., to G. W. ...zart & Co., Fargo, $39,996***0.7 mi. ...ger Co., to Rue Constr. Co., Bismarck, ...,195***16.2 mi. Emmons Co., to Wm. ...an & Co., Bismarck, $40,034***26.3 mi. ...mons Co., to Northern Imprv. Co., Fargo, ...,703***30.7 mi. Pembina and Walsh ...nties to Anderson Bros., Thief River ..., $55,187. Rejected bids 0.5 mi. Grant ... Sioux Counties; 0.3 mi. Grant Co.; 19.3 ... Stutsman Co.; 18.4 mi. Stutsman Co.; ... mi. Traill and Cass Counties; 54.7 mi. ...on, Griggs & Foster Counties. CD 7/26.

..., Cleveland—Comrs., Cuyahoga Co., P. ...nk, clk., Court House, paving Detroit ... to W. L. Schloss, McCracken Rd. & ...y., $31,500. J. D. McWilliams, 1926 ...ndard Bldg., co. engr.

...nsylvania—State Hy. Dpt., Harrisburg, ...rv. 3.10 mi. Montgomery Co., from Union ...ring Co., Broad & Stiles Sts., Phila., $32,- ... imprv. .03 mi. McKean Co., from Reed ... Kuhn, Elysburg, $53,718. CD 7/26—ENR ...

...ah—State Road Comn., Salt Lake City, ...rv. 12.65 mi. Millard Co., to W. W. Clyde ...Co., Springville, $36,800.

...ah—State Road Comn., J. S. Evans, chr., ... Lake City, Imprv. 14.079 mi. Iron Co., ... Duque & Frazzine, Tonopah, Nev., ...,248.

B. C., Namaimo—Province of British Columbia, Victoria, grading, surfacing 4½ mi. road way to connect with White Rapids. Day labor. $60,000. Dpt. P. Wks., Victoria, engr.

Nova Scotia—Dpt. National Defense (Sea), Ottawa, Ont., paving roads at naval base, to Acadia Const. Co. Ltd., 101 Upper Water St., Halifax, $83,000***paving roads at Naval Ordnance Depot and paving roads at Naval Base, both Halifax, to Acadia Const. Co. Ltd., Bridgewater, $52,000 and $83,000 respectively ***roads at Naval Base, Point Edward to Municipal Spraying & Contracting Co. Ltd., 1350 Barrington St., Halifax, $142,000. Grand total $360,000.

N. S., Kentville—Town, resurfacing 15 mi. streets, to Municipal Spraying and Contg. Co., Ltd., 1350 Barrington St., Halifax. Est. $45,000.

Ont., Kingston—City, F. J. Parker, city clk., paving S. Bartlett, Napier, Johnson, N. MacDonnell, Regent, Union and Montreal Sts., to Warren Bituminous Paving Co. Ltd., 1454 Bloor St., W., Toronto, $70,000.

Ont., St. Thomas—St. Thomas Suburban Area Roads Comn., St. Thomas, grading, etc., 3 mi. Talbot Rd. Day labor. $30,000. F. A. Bell, County Bldg., St. Thomas, engr.

Quebec—Province of Quebec, Quebec City, grading road Grenville to Provincial Paving Co. Ltd., 10 W. St. James St., Montreal, $112,000; grading, graveling 6 mi. road, Barraute, to General Enterprises Soc. Inc., Amos, $40,000.

Que., St. Hyacinthe—Dpt. National Defence (Sea), Ottawa, Ont., constructing and paving roads at Naval Training Centre, to National Paving & Const. Co. Ltd., 934 St. Catherine St., E., Montreal, $52,000.

EARTHWORK, WATERWAYS

PROPOSED WORK

N. D., Williston—Farm Security Admin., 950 Bway., Denver, Colo., land levelling, irrigation, structures, etc. on Buford-Trenton Project. $300,000.

†Texas—U. S. Eng., 231 W. Main St., Denison, levee repairs incl. 22,000 cu. yd. embankment, etc., Sol. 41-242-45-11, Corsicana, Navarro Co.; levee repairs, Sol. 41-242-45-10, Kaufman Co.

Tex., Beaumont—Lower Neches Valley Auth., Port Neches and Beaumont, construct earthen dam across Neches River, $40,000.

BIDS ASKED

Bids Asked August 22

Iowa—Bd. Superva. Harrison Co., Logan and Pottawattamie Co., Council Bluffs, furnishing, driving one thousand 20 ft. Cypress and white oak piling in bends in Boyer River for revetment, 609,000 cu. yd. excav. for dike on Boyer River in Harrison and Pottawattamie counties; 85,000 cu. yd. excav. and channel change in Pottawattamie Co., in NW¼ of SW¼ Sect. 21-77.44. Over $25,000. A. L. Thomas, Logan co. engr. Harrison Co. and D. Blake, Council Bluffs, co. engr. Pottawattamie Co.

Bids Asked August 24

†Mississippi—U. S. Eng. Office, P. O. Box 60, Vicksburg, 26,000 cu. yd. earth embankment right bank 25-00—246-49 and left bank 32-81—172-84 Item No. 10 L & R, along Ascalmore Creek, Tallahatchie Co., Solic. No. 22-052-45-10.

Bids Asked August 24

N. Y., New York—Comr. Parks, at office Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., Zone 21, reconstructing sea wall and constructing new rip rap blanket and incidental work along south and east shore, Randall's Island, Contr. M-104-144, Borough of Manhattan.

Bids Asked September 7

†Washington—Bureau Reclamation, S. O. Harper, ch. engr., Denver, Colo., furnishing, delivering f.o.b. cars at shipping point or at Odair, two-leaf miter gate for drydock at Grand Coulee Dam, Columbia Basin Project, Spec. No. 1757-D.

Bids Asked

†Kan., Council Grove—U. S. Eng., 416 Wright Bldg., Tulsa 2, Okla., constructing levees and bank repairs on Grand River, Sol. No. 24-066-45-3. Over $25,000.

†Oregon — Bureau Reclamation, Denver, Colo., Aug. 2, furnishing, delivering in stockpiles, approx. 10,200 tons sand and 15,900 ft. tons coarse aggregate for North Main Unit Main Canal on Deschutes Project Spec. 1749-D, from C. T. Lackey, Ontario, $101,-790. CD 7/7—ENR 7/13.

LOW BIDDERS

California—State Div. Hys., Los Angeles, Aug. 3, repairing concrete lined storm water channel, on Ridge Route, Los Angeles Co., from Mittry Bros. Constr. Co., 4801 San Fernando Rd., Los Angeles, $25,168. CD 7/20—ENR 7/27.

California—State Dpt., Pub. Wks., Div. Water Resources, Sacramento, bank protection on Eel River at Founders Grove, Dyerville, Humboldt Co., from Mercer-Fraser Co., 2 and Commercial Sts., Eureka, $28,599.

†Calif., Tulelake — Bureau Reclamation, Klamath, Ore., July 28, 3 pump. plants on Klamath Proj., California-Oregon, from C. A. Dunn Klamath Falls, $90,696. CD 6/21—ENR 6/29.

†La., Baton Rouge—U. S. Eng., foot of Prytania St., New Orleans, Zone 9, earthwork, etc., Pontchartrain Levee Dist., from Pioneer & Saunder, Dyersburg, $36,225.

†Neb., Hay Springs — Farm Security Admin., 950 Bway., Denver, Colo., Aug. 8, land leveling, irrigation, drainage structures, etc. from A. C. Ross, Scottsbluff, $309,850. CD 7/25—ENR 7/27.

†S. C., Charleston—U. S. Eng., 33 Customhouse, Aug. 3, dredging 35 ft. Charleston Harbor, Cooper River and Town Creek Channels, No. 38-081-45-1 Neg., from Norfolk Dredging Co., Campostella Wharf, Norfolk, $218,826. CD 7/25—ENR 7/27.

†Tex., Dallas—U. S. Eng., 231 W. Main St., Denison, levee repairs, Sol. 21-242-45-5, Dallas and Ellis Counties, from Morse Bros. & Assoc., Inc., 323 Ardis Bldg., Shreveport, La., $43,127.

CONTRACTS AWARDED

Conn., Hartford—City Bd. Contract & Supply, 550 Main St., Contr. 29, flood protection project, incl. grading, filling, moving stone, excav., Bushnell Park, to White Oak Excavators, Inc., 59 East Main St., Plainville, $24,284. CD 6/13—ENR 6/15.

†Me., Searsport—U. S. Eng., 31 St. James Ave., Boston, Mass., dredging No. 19-023-45-NEG 11, to J. S. Packard Dredging Co., 1 Court St., Boston, Mass., $29,243.

Mo., Kansas City—City, c/o K. K. King, dir. P. Wks., City Hall, 12 and Oak Sts., reconstructing Brush Creek Retaining walls, to Frank Flinn Rock & Constr. Co., 92 St. and Highway 71, $24,819.

N. J., Bloomfield—Bd. Educ., Essex Co. Vocational School, Hall of Records Bldg., Newark, constructing rubble and mortar retaining wall and stone and rubble gutters, also resetting wire fences at school area to La Fera-Grecco Contracting Co., 149 Verona Ave., Newark. $25,000.

†Oklahoma—Bureau Reclamation, Altus, open flume approaches and concrete siphon under North Fork of Red River near Lugert, to Morrison-Knudson, Inc., 319 Bway., Boise, Idaho, $459,133. CD 7/26—ENR 7/13.

PUBLIC BUILDINGS

PROPOSED WORK

†California—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architectural and engineering services by C. Beelman, 1019 Union Bank Bldg., Los Angeles, high explosive magazine and bakery, Camp Joseph H. Pendelton, and addnl. bachelor officers quarters, Camp Kearney, Oceanside and San Diego.

†California—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architectural and engineering services by Donald R. Warren Co., 461 Market St., San Francisco, development of Naval Supply Depot, Oakland Annex, Rough & Ready Ils, Stockton.

†Calif., Coronado—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., architectural and engineering services by W. Templeton Johnson, 1400 San Diego Blvd., San Diego, Waves barracks, naval barracks.

†Calif., Martinez—Federal Works Agency, 2223 Fulton St., Berkeley, Zone 1, plans by D. Horn, Claremont Hotel, Berkeley, frame nursery school bldg., Calif. 4-607. $15,000.

†Calif., Oakland—Federal Works Agency, 2223 Fulton St., Berkeley, Zone 1, plans by F. Confer, Financial Center Bldg., Oakland, 2 frame nursery school bldg., Calif. 4-640-F. $32,000. CD 7/18—ENR 7/20.

Calif., Salinas—Salinas Community Hospital Addn., Inc., Salinas National Bank Bldg., plans by C. E. Butner, 7 Winham St., 2 story, rein.-con. Park Lane Hospital addn., Maple Park. $210,000.

†Calif., San Francisco—Pub. Housing Auth., NHA, 785 Market St., furnishing, transporting, erection 500 prefabricated portable dwelling units, site development work necessary for Calif. 4566. L. J. Sharpe & F. Starks, 904 DeYoung Bldg., archts.

†Conn., Middletown—Pub. Housing Auth., NHA, 24 School St., Boston, 8, Mass., grading, site imprvs., Conn. 9-1. J. F. Whitney, Belden Hill, Wilton, archt.

†District of Columbia—Pub. Housing Auth., NHA, 1201 Connecticut Ave. N.W., Wash., Zone 25, 400 family dwelling units in southwest area of Wash., D. C. 49104.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

†D. C., Bellevue—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., plans by Wm. M. Denton, 1719 I St. N.W., Wash., explosive bldg., NOY 10455.

†Ga., Jesup—City, c/o Mayor, health center, Ga. 9-297. $35,000. FWA. J. B. McCrary Co., 22 Marietta St. Bldg., Atlanta, engrs.

Ga., Jesup—City plans by Morton H. Levy, Liberty Bank & Trust Bldg., Savannah, hospital. $400,000.

†Ga., Marietta—Federal Works Agency, 20 Fifth St. N.W., Atlanta, rejected bids 7/26 2 child care bldgs., Ga. 9-301-F. CD 7/17—ENR 7/20.

†Ga., Savannah—Federal Works Agency, Candler Bldg., Atlanta, child care bldg. $40,000.

†Ill., Rockford—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Zone 6, 75 family stop-gap dwelling units, Ill. 11230; 25 family stop-gap dwelling units, Ill. 11231.

★†Mass., East Hampton—General Electric Co., 1 River Rd., Schenectady, N. Y., plant imprvs. $2,350,000. Defense Plant Corp. will finance.

†Mich., Albion—Albion Malleable Iron Co., Albion, addnl. plant work. $75,000. Defense Plant Corp. will finance.

Miss., Gulfport—City, plans by V. B. Smith, Jr. and R. H. Bean Asso., Gulfport, health center.

†N. J., Deerfield—Bd. Educ., Upper Deerfield, bids soon grade school addn., N.J. 38-179. FWA. J. N. Hetlel, 501 Cooper St., Camden, archt. CD 8/7—ENR 8/10.

†N. C., Kinston—Eastern Carolina Hospital Corp., Kinston, postponed bids to have been opened August 15, 2 story, bsmnt., brick nurse's home for Memorial General Hospital, NC-31-295. $67,300. FWA. Plans deposit $15. J. J. Rowland, 330 N. Queen St., archt. CD 8/1—ENR 8/3.

O., Bay Village—Bd. Educ., Mrs. Dorothy Grimes, clk., Cahoon Rd., to vote $280,000 bond issue Nov. 7, elementary school bldg. and addns. to 2 schools. H. A. Fulton, 6014 Euclid Ave., Cleveland, archt.

★O., Columbus—State Dpt. P. Welfare, State Office Bldg., plans by Maier, Outcalt & Dickerson, 13124 Shaker Sq., Cleveland, School for Blind on present site of Wyandot Country Club, Walker, Norwick & Templin, American Bldg., Dayton, assoc. archt., $2,581,650; plans by F. W. Garber, Union Central Bldg., Cincinnati, schools for Deaf on same site $3,075,760. Sims Cornelius & Assoc., 2901 N. High St., assoc. archt.

★O., Mt. Vernon—Ohio State Dpt. Welfare, State Office Bldg., plans by T. E. Bland, state archt.-engr., hospital at Ohio State Tuberculosis Sanitarium; $700,000. CD 5/5—ENR 5/11.

†Pa., Crum Lynne—Atlantic Steel Castings Co., Chester, addnl. plant imprvs. $35,000. Defense Plant Corp. will finance.

Pa., Erie—St. Vincent Hospital, Erie, plans by Meyers & Johnson, Commerce Bldg., 5 story, bsmnt., L-shaped, 40x134 and 40x70 ft. wings, brick, rein.-con. nurses home addn., $350,000. Mayer & Valentine, 2036 E. 22 St., Cleveland, O., mech. engr.

★Pa., Norristown—Dpt. P. Welfare, Capital Bldg., Harrisburg, bids soon hospital bldg. addn., $840,000. Howell, Lewis & Shay, Packard Bldg., Phila., archts. CD 4/19—ENR 4/27 under BA.

†Pa., Phila.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., 25, D. C., soon takes bids locomotive and crane repair bldg., NOY 8553. $200,000.

†R. I., Newport—Federal Works Agency, 99 Chauncy St., Boston, Mass., sketches by Noel & Miller, 6 Catherine St., recreation bldg. addn. to dormitory, W. Bway.

Tex., Dallas—City plans by Christensen & Christensen, 1327 Wood St., fire station. $150,000.

Tex., Dallas—A. Templeton, judge, Dallas Co., plans by Geo. Dahl, Southland Life Bldg. Annex, 2 story addn., Records Hall bldg., $150,000.

★†Tex., Waco—General Tire & Rubber Co., 1708 E. Market St., Akron, O., rubber products mfg. plant. $1,500,000. Defense Plant Corp. will finance.

Utah, Salt Lake City—City c/o C. W. Scott, archt., Dooley Bldg., fire station 1 at 132 E. First South St., $100,000-$150,000.

★†Va., Portsmouth—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., public works bldg., $1,500,000; 3 warehouse, $375,000; Ordnance Warehouse bldg., $650,000.

†Wash., Evans—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., Seattle, Zone 1, 13 family dwelling units, Wash., 45270.

†Wash., Morton—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave., Union St., Seattle, Zone 1, 30 family dwelling units, Wash., 45269.

†Wis., Racine-Kenosha — Pub. Housing Auth., NHA, 201 North Wells St., Chicago, 6, Ill., 80 family stop-gap dwelling units, Wis. 47079.

†Wyo., Saratoga—Pub. Housing Auth., NHA, Skinner Bldg., Fifth Ave., Union St., Seattle, Zone 1, 20 family stop-gap trailer units, Wyo. 44099.

★B. C., New Westminster—Royal Columbian Hospital, plans by H. Whittaker, Parliament Bldg., Victoria, hospital wing addn. $750,000.

BIDS ASKED

Bids Asked August 22

†Ind., Camp Atterbury—U. S. Eng., 612 Federal Bldg., Louisville, Ky., 1 story, frame general army hospital (conversion from army camp). $389,500.

★†Pa., Farrell—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., 150 unit 2 story, bsmnt., permanent family dwelling units, Steel City Terrace, Pa. 20-1. $750,000. Burke, Smart & Braziell, 306 Magee Bldg., Pittsburgh, archts. CD 8/14—ENR 8/10 under LB.

†Va., Timberville—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, 3, Ga., 192 unit trailer housing, incl. utilities, site imprvs., parking area, walks, grading, maintenance bldg., Projects Va. 44317 and 44318. Plans deposit $15. R. S. Royer, 207 Exchange Bldg., Richmond, 19, archt. CD 7/19—ENR 7/27.

Bids Asked August 23

†Va., Hampton—R. E. Wilson, clk. Elizabeth City County, County Courthouse, 1 story, brick, concrete fire station in Wythe Dist., Va. 44-111. Est. $36,200. FWA. Plans deposit $15. Williams, Coile & Pipino, 408 Melson Bldg., Newport News, archts.

Bids Asked August 24

Mich., Homer—Bd. Educ. at office Community House, community school. L. J. Sarvis, Bailey Bldg., Battle Creek, archt. CD 10/26—ENR 10/28.

†N. C., Raleigh—Trustees of Rex Hospital, Inc., F. Daniels, pres., 17 W. South St., nurses home, N. C. 31-290-N. Plans deposit $25. W. H. Deitrick, 115 W. Morgan St., archt.

†S. C., Winnsboro—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, 3, Ga., emplacement 53 trailers, utilities, site improvements, maintenance bldg., War Trailer Proj. S. C. 38032. Lafaye, Lafaye & Fair, 1226 Sumter St., Columbia, archts. CD 7/19—ENR 7/27.

B. C., Coquitlam—Minister Pub. Wks., Victoria, boys industrial school, for Provincial Govt., Victoria. $150,000. Dpt. Pub. Wks., Victoria, archts.

Bids Asked August 25

†N. J., Newark—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., 150 unit dwellings, N. J. 2-9. W. E. Lehman, Jr., 972 Broad St., Newark, archt. CD 8/8—ENR 8/10.

Bids Asked August 29

†Ga., Warner-Robins—Houston Co. Bd. Educ., 3 one story public schools, Ga. 9-285-F. FWA. Dennis & Dennis, 1106 Bankers Insurance Bldg., Macon, archts. CD 7/28—ENR 4/13.

Bids Asked About August 31

†O., Dayton—Pub. Bldgs. Admin., 18 and F Sts., N.W., Wash., 25, D. C., temporary addn. to nurses home, Miami Valley Hospital, Ohio 33-284-F. FWA. Schenck & Williams, 1406 Third Natl. Bank Bldg., archts. CD 6/7—ENR 6/15.

Bids Asked September 1

†Va., Charlottesville — Supt. Bldgs. & Grounds, University of Virginia, nurses home addn., Va. 44356. $295,000. FWA. Taylor & Fisher, 1013 No. Calvert St., Baltimore, archt. CD 8/3—ENR 8/10.

LOW BIDDERS

†S.C., Charleston—At office F.O. Bates, supt. Roper Hospital, Main Bldg., Lucas St., July 20, general contract completing 1st unit, New Roper Hospital, S.C., 38-139 (NF) for Medical Society of South Carolina, Roper Hospital, from Southeastern Const. Co., 218 W. 2 St., Charlotte, N. C., $286,606. FWA. CD 7/14—ENR 2/5.

†Tex., Waco—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash., 25, D. C., Aug. 5, veterans hospital from Rob. E. McKee, 1918 Texas St., El Paso, $442,500. CD 7/5—ENR 7/13.

†Wash., Port Orchard—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., 25, D.C., Aug. 8, 2 schools Wash. 45-283, from Northern Constr. Co., 1832 14 Ave., Seattle, $323,213. FWA CD 7/27—ENR 6/29.

†Wis., Merrimac—U. S. Eng., 408 Federal Bldg., Milwaukee, Aug. 7, miscellaneous bldgs. at Badger Ordnance plant, from M. Schumacher, Baker Bldg., Minneapolis, Minn., $275,405. Hercules Powder Co., Market St., Wilmington, Del. will operate. Mason & Hangar Co., 500 5 Ave., New York, N. Y., archts.-engrs.

†Wis., Merrimac—U. S. Eng., 408 Federal Bldg., Milwaukee, July 31, outside electric distr. sys. at Badger Ordnance Plant, from L. E. Myers Co., 53 W. Jackson St., Chicago, Ill., $71,889. Hercules Powder Co., 908 Market St., Wilmington, Del., will operate. Mason & Hanger Co., 500 5 Ave., New York, N. Y., archts.-engrs.

CONTRACTS AWARDED

†D. C., Wash.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., air conditioning Ordnance Gas laboratory, Naval Gun Factory, NOY [illegible] to Norair Corp., 1114 22 St. N.W., $111,[illegible] CD 6/26.

★†Ill., Chicago—U. S. Eng., 520 Merchandise Mart, 2 story, 136 x 600 ft. administration bldg., to Coath & Goss, 228 La Salle St. Est. $1,500,000. Douglas Fircraft Co. Inc., Manheim and Higgins Rd., Park Ridge, will operate. Skidmore, Owings & Merrill, 104 S. Michian Ave., archts.

★†Ill., Chicago—Pub. Housing Auth., NHA, 208 S. La Salle St., 250 unit, 2 story, duplex residences, Ill. 11-204. Welso Constr. Co., 2233 W. Grand Ave. $1,294,845. Est. $1,500,000. Bids 7/18. 7/27—ENR 7/27 under LB.

★†Mich., Royal Oak—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., temporary family dwelling units, Mich. 20233, to Kuhne-Simon Assoc., Rantoul, Ill. $1,370,000. CD 7/11—ENR 7/13, under LB.

★†Minn., St. Paul—U. S. Eng., 1709 Jackson St., Omaha, Neb., design and construction ordnance plant expansion, to Foley Const. Co., 711 Wesley Temple Bldg., Minneapolis. Est. $3,000,000. Prime Contract Minneapolis-Moline Power Implement Co., Ordnance Div., 3200 Como Ave. S.E., Minneapolis.

†N. J., Metuchen—U. S. Eng., 120 W. St., New York, 5, N. Y., motor repair shop bldg. addn., to A. A. La Fountain Inc., Beech St., Hackensack. $40,990.

†O., Akron—Rubber Reserve Co., Goodyear Tire & Rubber Co., J. Hergett, charge, 1144 E. Market St., 1 and 2 story, 65 x 172 ft., cooling tower and blow sprayer and baffels on roof, to India Engr. & Const. Co., 109 N. Union Ave., cooling sys. and piping to Kaighin Hughes, 125 S. Huron St., Toledo. $300,000. J. Gordon Turnbull, 2630 Chester Ave., Cleveland, engr. Federally financed.

★†Ore., Vanport City—Pub. Bldgs. Admin., 18 and F Sts., N.W., Wash., 25, D. C., school to Lewis Constr. Co., 4275 N.W. York Ave., Portland, $219,500. CD 6/30—ENR 7/[illegible]

†Texas—Pub. Housing Auth., NHA, 1[illegible] Electric Bldg., Seventh and Taylor Sts., Fort Worth, trailer work for housing in Galveston, Texas City, Palacios, Freeport, etc., to Henderson Bros., 7051 Chocolate Bayou Rd., Houston, approx. $166,000.

†Tex., Corpus Christi—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., addnl. Naval hospital facilities, NOY 9464, to Thomas Bate & Son, 1107 Girard St., Houston, $179,393. CD 7/[illegible]

†Tex., Fort Worth—U. S. Eng., 321 Main St., Denison, aircraft plant No. [illegible] addn., to Willis & Sanfuinet, Waggoner Bldg., Fort Worth, approx. $40,000.

★†Utah, Clearfield—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., developing barracks, NOY 8544 to R. J. Daum & Myers, 613 Boson Bldg., Salt Lake City, $721,996. 7/23 under LB.

★†Va., Alexandria—Pub. Housing Auth., NHA, Temporary Bldg., ±2, 19 and Sts. N.W., Wash., 25, D.C., 166 unit family dwellings, Va. 4-3, to Tobias Heller & Co., Inc., 441 Lexington Ave., New York, N. Y. $734,000. Bids 7/25, awarded 8/11. CD 7/[illegible] —ENR 8/3 under LB.

★Va., Hopewell—Hercules Powder Co., M. C. McMillIken, genl. mgr. Cellulose Products Dpt., Delaware Trust Bldg., Wilmington, Del., expanding ethyl cellulose plant to J. Kennon Perrin Co., Central Natl. Bank Bldg., Richmond.

†Va., Quantico—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., 25, D. C., extending central power plant, Marine Barracks, NOY 8876, to Mehring Hanson Co., 12 H St. N.E., Wash., D. C. $391,400. Bids 7/21. CD 7/10—ENR 7/[illegible]

★†Wash., Tacoma—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., 25, D. C., bldgs., Advance Base Depot, NOY 9931 to Henrick Valle Co., 407 1 Ave. W., Seattle, Zone 99, $1,996,000. Bids [illegible] CD 7/21—ENR 6/8.

†Wis., Merrimac—U. S. Eng., 408 Federal Bldg., Milwaukee, outside steam lines at Badger Ordnance Plant to F. H. McGraw Co., P. O. Box 210, Gary, Ind., $[illegible] Bids 7/23. Hercules Powder Co., 908 Market St., Wilmington, Del., will operate. Mason & Hanger Co., 500 5 Ave., New York, N. Y., engrs.-archts.

LIC BLDGS. (Low Bidders, Cont'd.)

...H. Oaks—Pub. Housing Auth., NHA; ...Market St., San Francisco, Calif., 250 ...mporary housing, TH $1030, to E. E. ... Ltd., Honolulu, $782,239. CD 8/19—1/15.

...Toronto—Dpt. National Defense ... Ottawa, Naval Training Station at ...C.S. "York" to W. B. Sullivan, Constr., ...18 Bloor St. W., Est. $250,000. Bids CD 7/15—ENR 7/20.

COMMERCIAL-BUILDINGS

PROPOSED WORK

...h, Detroit—McGregor Health Founda... ...4611 Woodward Ave., plans by Albert ...Associated Architects and Engineers, ...315 New Center Bldg., Zone 2, 3 story, ...t., brick, concrete hospital. $150,000.

...Gettysburg—Warner Memorial Hos... ...Gettysburg, plans by J. B. Hamme, 31 ...Market St., New York, altering, addns. ...spital.

...Houston—O.K. Theatres, Inc., ...F. Sharp, Lindale Theatre, E. Mont... ...ery Rd., theatre construction. $150,-

BIDS ASKED

...Middle River—Wilbur Apartments, ...Middle River, 1 story 44 x 140 ft., ...tre bldg., incl. nine 116 x 230 ft. stores. ...940. Hall A. Miller & Assoc., 421 St. ...Pl., Baltimore, archts.

CONTRACTS AWARDED

...., West Hartford—West Hartford ...ge, Inc., c/o W. Wilkins, archts., 648 ...m St., Hartford, forty 2 story, ...4 apartment units, to F. H. McGraw ...Co., 750 Windsor St., Hartford, $156,-

...H., Dover—Northam Corp., H. L. ...lds, pres., P. O. Box 2207, South Port... ...Me., 33 frame homes, to C. S. Patten, ...ast St., Melrose, Mass.; sewer and roads ...W. H. Hinman, Inc., North Anson, Me. ...$150,000. Hutchins & French, 11 Bea... ...St., Boston, Mass., archts.

...., Greenville—Bd. Trustees Thiel Col... ...Wm. Zimmerman, pres., College Ave., ...tory, dormitory, to Del Val Constr. Co., ...wood Bldg., Scarsdale, N. Y., est. ...,000. Martsolf & Martsolf, 512 3 Ave., ...Brighton, archts. CD 7/6—ENR 7/13.

...., Midland—Crucible Steel Co. of Amer... ...415 Lexington Ave., New York, N. Y., ...erting 3 story, 90x120 ft., brick, frame ...rtment into office bldg., to Edward ...mp, Jr., Inc., 4031 Bigelow Blvd., Pitts... ...rh, est. $150,000. W. Stewart Thompson, ...E. 45 St., New York, N. Y., archt. CD ...—ENR 7/13.

...r., Houston—O. K. Theatres, Inc., and ...Sharp, Lindale Theatre, E. Montgomery ...Houston, theatre, force account $150,- ...CD 8/10.

...k., Waukesha—Brody & Sondel, Inc., ...W. National Ave., West Allis, 30 resi... ...es. Owner builds. Over $150,000.

...t., Windsor—L. A. Merlo, 3615 River... ...Dr., 150 houses, on Francoise Rd., to ...ting Const. Co. Ltd., 2492 Sandwich St. ...Est. about $700,000.

...Que., Quebec City—Hospital St. Sacra... ...mento, Cong. of Sisters of Charity, 5 ...ier St., 3 hospital wings, 4440 Ste. Foye ...to Magliore Cauchon, Ltd., 325 de La ...e St. $550,000. Beaule & Morissette, 31 ...rgillion St., archts.

INDUSTRIAL BUILDINGS

PROPOSED WORK

...lif., El Segundo — REFINERY ADDI... ...NS—Standard Oil Co., El Segundo, steam ...ers at refinery, $198,000; cafeteria bldg., ...,000.

...lif., Santa Rosa — FROZEN FOOD ...CKER—M. B. Lovelace, F. Lohsee and ...White, 523 Spruce St., 1 story, 60 x 103 ...concrete, tile and glass brick frozen food ...er, $80,000.

...Colo., Denver — DIESEL SERVICE ...BLDG., etc.—Chicago, Burlington & ...cy R.R. Co., H. R. Clarke, ch. engr., 547 ...Jackson Blvd., Chicago, 6, Ill., diesel ...ice bldg., facilities, $523,371.

...., Denver—PLANT—Union Pacific Sys... ...B. H. Prater, ch. engr., 1416 Dodge St., ...aha, Neb., plans by Roland I. Linder, ...rance Bldg., bldg. addn. $65,000. B. K. ...ney Co., lessee.

...., Bridgeport — OIL TERMINAL— ...kley Bros., 86 Seaview Ave., oil terminal ...nsion, incl. tank storage accommoda... ...s for 30 m.g.

Conn., East Hartford—CLINIC, etc.—Pratt & Whitney Div. United Aircraft Corp., 400 Main St., soon lets contract clinic and first aid bldg., also altering, imprvs. laboratory partitions, etc., $40,000.

Conn., New London — FACTORY — Templeton Radio Co., Greenmanville Ave., Mystic, sketches brick factory. $40,000.

Ky., Newport—PLANT ADDITIONS—McGraw Constr. Co., Middletown, O., heating plant, cafeteria, roads, bridges, etc. $280,000.

Mass., Hyde Park (sta. Boston)—FACTORY—Magnesium Casting Co., 88 Business St., plans by M. Linenthal, 16 Lincoln St., Boston, 2 story, 70x146 ft., brick., factory. $41,000.

★**Minn., Austin** — PLANT — Honeymead Products Co., 850 10 St. S.W., Cedar Rapids, Ia., 600,000 bushel storage cap. soybean plant. $500,000.

Neb., Omaha—PLANT—Union Stock Yards Co., South Omaha, dehydration plant making fertilizer from stockyards refuse. $50,000.

N. J., Piscataway (P.O. Bound Brook)—BOILER HOUSE—Benzol Products Co., Meadow Rd., soon lets contract 1 story, boiler house and 1 story coal silo. $50,000. F. Koenig, 48 Walnut St., Newark, archt. S. Shaw, 24 Walnut St., Newark, engr. CD 7/25—ENR 7/27.

★**O., Bellevue**—STORAGE ELEVATOR—Spencer Kellogg & Sons, Inc., Niagara Sq., Buffalo, N. Y., storage elevator, trackage, roadways. $932,785.

★**O., Brecksville**—LABORATORY—B. F. Goodrich Co., 500 S. Main St., Akron, plans by Shreve, Lamb & Harmon, Assoc., 11 E. 44 St., New York, 17, N. Y., rubber research and development laboratory. $1,500,000.

O., Clyde—FACTORY—Clyde Porcelain Steel Corp., Clyde, plans factory addn.

O., Conneaut—ROUNDHOUSE, etc.—Cleveland, Cincinnati, Chicago & St. Louis Ry., F. J. Jerome, ch. engr., La Salle St. Station, Chicago, Ill., soon lets contract extend 38x100 ft. round house and 100x200 ft. machine shop. $200,000.

★**O., Toledo**—PLANT—Libby-Owens Ford Glass Co., Nicholas Bldg., bldg. addn. $787,849.

Tex., Austin—PLANT—International Minerals & Chemicals Corps., P. O. Box 1163, Austin, plant. $40,000.

Tex., Corsicana—PLANT—Bethlehem Steel Co., Bethlehem, Pa., expans., imprv. mfg. plant for oilfield equip., supplies, etc., over $40,000.

Tex., Fort Worth—PLANT—Swift & Co., E. Exchange St., revising plans, packing plant bldgs., $150,000.

Tex., Houston—PLANT—Eastern States Petroleum Co., 2nd Natl. Bank Bldg., converting butadiene plant into feed stock unit for aviation gasoline. $200,000. Defense Plant Corp. will finance.

★**Tex., Houston** — PLANT — Houston Oil Field Materials Co., c/o Geo. O'Leary, pres., 1524 Maury St., soon lets contract approx. 100 x 150 ft. masonry, steel chemical plant, on 14 acre site on Wayside Drive, between McKinney Ave. and G. H. & H. tracks, $1,000,000. H. Moore, 2008 W. Alabamar Ave., archt.

Tex., Houston—PLANT—Murray Rubber Co., 606 N. Milby St., Houston, 1 story, 50 x 75 ft., brick, hollow tile, etc. plant addn., $40,000.

Tex., Mission — WAREHOUSE — Walker Craig Co., 506 Fronton St., Brownsville, brick, rein.-con., hollow tile, etc. warehouse, $40,000.

★**Utah, Garfield**—PLANT—Garfield Chemical & Mfg. Co., W. J. O'Connor, mgr., American Smelting & Refining Co., McCormick Bldg., Salt Lake City, 150 ton capacity sulphuric acid plant, $1,000,000.

Wis., Sheboygan — BOTTLING HOUSE — Kingsbury Breweries Co., 1012 New York Ave., plans by Satre & Senescall, 802 Michigan Ave., 1 and 2 story, 55 x 146 ft., structural steel, brick bottling house.

B. C., Cloverdale—MILL, etc.—Surrey Co-operative Assn., B. H. Creelman, chn., Cloverdale, mill and warehouse. $175,000.

B. C., Esquimalt—PLANT—Empire Cannery Co., Victoria, plant addn. $40,000.

B. C., New Westminster—PLANT—Gypsum, Lime & Alabastine Canada, Ltd., New Westminster, gypsum and wallboard plant. $100,000.

B. C., Prince George—SAW MILL—Northern Spruce Co. Ltd., Assam Block, saw mill, planing mill, etc. $40,000.

B. C., Vancouver—PACKING PLANT—Fletchers Ltd., 1823 Kingsway, Vancouver, packing plant, corner Kent and Fraser Sts. $50,000.

B. C., Vancouver—WAREHOUSE—Standard Oil Co. of British Columbia, Ltd., 355 Burrard St., warehouse. $200,000.

B. C., Vancouver—COLD STORAGE—Vancouver Ice & Cold Storage, Ltd., 303 Roadway St., 85x244 ft. cold storage bldg. $89,400.

Ont., Cobalt — SMELTER — C. V. J. O'Shaughnessy, c/o Cobalt Producer Association, Cobalt, 10 tons per day smelter. $200,000.

Ont., Cornwall—PLANT—Courtaids Canada Ltd., Cornwall, rayon stable fibre manufacturing plant. $150,000.

Ont., Hamilton—FACTORY—Beechnut Co. of Canada, Ltd., Hamilton, factory. $40,000.

★**Ont., Hamilton**—PLANT EXTENSION—Steel Co. of Canada, Ltd., Wilox St., plant exten., incl. equip. $1,900,000.

Ont., Midland — PLANT — New Process Equipment Co. Ltd., c/o E. M. Shaw, Midland, plant. $40,000.

Ont., Oakville — PLANT — Oakville Fruits Ltd., Oakville, plant for manufacturing and processing fruits, vegetables, etc. $40,000.

Ont., Ottawa — PLANT — Insulated Steel Homes, Ltd., c/o M. Greenberg, 56 Spark St., Ottawa, plant for manufacturing, fabricating insulated steel dwellings, etc. $50,000.

Ont., Toronto — PLANT — Ogilvie Flour Mills Co., Ltd., Sun Life Bldg., Montreal, Que., plans by C. R. Tetley, 65 St. Sulpice Rd., 1 story, bsmnt., 45 x 94 ft. plant, 45 x 300 ft. warehouse with garage, etc., Fleet St. $90,000.

Ont., Toronto — PLANT — Page Brothers Products Ltd., c/o C. G. Page, 18 Toronto St., plant for manufacture of soaps, etc. $40,000.

Que., Montreal — FACTORY — Dominion Lock Co. Ltd., 3830 St. Ambroise St., factory. $40,000.

Que., Montreal—FACTORY—Kay Metal Renning Works, 301 Nazareth St., factory addn. $40,000. H. Jasen, 1592 W. Ste. Catherine St., engr.

BIDS ASKED

Bids Asked August 18

Pa., Phila.—TERMINAL—A. J. Carson, archt., 325 Memorial Ave., West Springfield, 1 story, 90x105 ft., brick, concrete steel terminal addn., incl. grading 4 acres, constructing roads, etc., for Associated Transport, Inc., c/o archt. Est. over $40,000. CD 8/1—ENR 8/3.

Bids Asked

Ont., Leaside (Toronto)—SERVICE BLDG., etc.—Margison & Babcock, archts., New Wellington Bldg., Toronto, 1 story, part bsmnt., 152 x 162 ft., brick, concrete block, service and warehouse bldg., for Sheridan Equipment Co. Ltd., 7 Industrial St. Est. $60,000.

Que., St. Laurent (P.O. Dist. Montreal)—PLANT—Ayerst, McKenna & Harrison, 485 McGill St., Montreal, 1 story, 54x109 ft., brick, concrete slab plant addn. $40,000.

CONTRACTS AWARDED

Calif., Los Angeles — PLANT — Reliable Mfg. Co., 3636 Humbolt Ave., 1 story, 140 x 307 ft., steel frame, corrugated iron siding plant bldg., to Buttress & McClellan, Inc., 1013 E. 8 St., Los Angeles, approx. $90,000. CD 6/21—ENR 6/29.

Calif., Richmond — WAREHOUSE, etc. — Kinetic Chemicals, Inc., jointly owned by E. I. Du Pont de Nemours & Co., Du Pont Bldg., Wilmington, Del., and General Motors Co., General Motors Bldg., Detroit, Mich., 61x192 ft. concrete warehouse and repackaging station, with 350 ft. spur track, to Swinerton & Walberg, 235 Bush St., San Francisco.

Conn., Stratford—FACTORY—Raybestos-Manhattan Inc., 75 E. Main St., 2 story, 75x130 ft. brick factory, E. Main St., to O. F. Burghart, 871 Central Ave., Bridgeport. Est. $45,000.

Ia., Sioux City—PLANT—Armour & Co., U. S. Yards, Chicago, Ill., plant addns., to W. A. Klinger, Inc., 20 Warnock Bldg., $55,000.

La., Gretna — PLANT — Gulf Distilling Corp., 135 Amelia St., New Orleans, rein.-con. fdn. for distilling fermenter bldg., to R. P. Farnsworth & Co., 1515 S. Salcedo St., New Orleans, $40,000. CD. 8/24—ENR 8/26.

Mass., Florence — FACTORY — Pro-Phy-Lac-Tic Brush Co., Pine St., 1 story, bsmnt., 50x150 ft., concrete, steel factory, Bridge St., to D. A. Sullivan & Sons, Inc., 78 Main St., Northampton, est. $40,000.

Mass., Hopedale — FOUNDRY — Draper Corp., Hopedale, imprv. fdry., conveyor sys., to Bathelt Constr. Co., 380 High St., Holyoke. Est. $90,000.

Mass., Ware—FACTORY—Ware Industries, Inc., M. Wood, pres., E. Main St., rebuilding 3 unit factory bldgs., E. Main St., to H. P. Cummings Constr. Co., Main St. Est. $75,000. CD 1/11—ENR 1/20.

Mich., Hamtramck (br. Detroit)—FACTORY—Chrysler Corp., 341 Massachusetts Ave., Highland Park, 3 top story, brick, steel, rein.-con. factory addn. Bldg. No. 415, to George A. Fuller Co., 1712 W. Jefferson Ave., Detroit. $100,000.

Mich., Muskegon — FOUNDRY—Campbell, Wyant & Cannon Foundry Co., Muskegon, brick, concrete, steel sleeve fdry. for Plant #4, to Ramberg Co., Muskegon. Est. $75,000.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

Mich., Plymouth — PLANT — Plymouth Motor Car Co., 6334 Lynch St., Detroit, brick, steel, rein.-con. addn. Bldg. No. 102, to O. W. Burke Co., 1001 Fisher Bldg., Detroit. **$75,000.**

Mo., St. Louis—PLANT—Carter Carburetor Co., 2840 North Spring Ave., Zone 7, 1 and 2 story, 37x71 ft., brick addn. to plant office bldg., to L. O. Stocker Co., Arcade Bldg., 306 Olive St. Est. **$40,000** with equip.

Mo., St. Louis—PLANT—General Cable Corp., 4121 North Kings Highway Blvd., Zone 15, design and construction 2 story, 60x206 ft., brick plant addn., incl. offices, dispensary and cafeteria, to Stone & Webster, Inc., 5044 Farlin Ave., St. Louis, Zone 15. Est. **$300,000.**

N. J., Paterson—LABORATORY—Patent Chemicals Inc., 57 Wilkensen Ave., Jersey City, laboratory bldg. to J. F. Mitchell, 40 Clinton St., Newark, **$50,000.**

N. J., Ridgefield—PLANT—Union Ink Co., Route 17, E. Rutherford, 110x140 ft., brick, steel manufacturing bldg. and laboratory, to C. A. Hunt Engineering Co., 485 Ft. Lee Rd., Teaneck, **$50,000.** CD 7/31—ENR 8/3.

N.J., Woodridge—PLANT MEZZANINES—Wright Aeronautical Corp., Woodridge, 3 new mezzanines for bldgs. at plant site, to Fred Brotherton Inc., 185 Atlantic St., Hackensack, **$45,000.**

O., Cleveland—FACTORY—Cleveland Diesel Engine Division of General Motors Corp., 2130 W. 110 St., 1 story, 26x121 ft., brick, steel, factory top addn. to Albert M. Higley Co., 2036 E. 22 St. Est. **$40,000.**

O., Cleveland—PLANT—Jack & Heintz, Inc., Wm. S. Jack, pres., 1700 Bway., Bedford, 1 story, 40x650 ft., addn. plant 5, 1 story, 40x275 ft. addn. plant 6, and roof over bldgs. between Bldgs. 5 and 7, to Stremple Const. Co., 17600 Bway., Bedford. Est. **$340,000.** Wilbur Watson & Assoc., 4614 Prospect Ave., Cleveland, archt.-engr.

Tex., San Antonio—PLANT—Berry Packing Co., 403 Medio St., imprv., double capacity refrigeration plant, to A. E. Rheiner & Co., American Hospital & Life Bldg., San Antonio, **$40,000.** CD 8/9.

Ont., Elmira—MILL—Martni Feed Mills, Ltd., E. B. Martni, mgr., 40x150 ft. concrete mill and warehouse, concrete fdn., own forces. Est. **$70,000.** CD 1/10.

UNCLASSIFIED

PROPOSED WORK

Ark., Fayetteville—SWIMMING POOL—University of Arkansas, Fayetteville, bids soon, swimming pool, $75,000. C. Nelson, Fort Smith, archt. CD 6/15—ENR 6/22.

Calif., El Segundo—RAIL FACILITIES—General Chemical Co., El Segundo, replacing rail facilities at plant, $102,000.

Colo., Denver — RUNWAY PAVING — The Colorado & Southern Ry. Co., H. R. Clarke, ch. engr., 547 W. Jackson St., Chicago, Ill., concrete runway and miscellaneous paving, $36,785.

Ia., Sibley—AIRPORT—City, R. D. Stewart, city clk., $25,000 election Aug. 14, municipal airport.

Louisiana—PIPE LINE—Haynesville Operating Comm., (Unitized), Haynesville, laying 150 mi. 2 to 20 in. natural gas pipeline carrier. Over $250,000.

†La., Harding Field (P. O. Baton Rouge)—TAXIWAY—U. S. Eng., Avenue F and 25 St., Galveston, Tex., addnl. taxiway. Over $75,000.

★**†Md., Patuxent River (Br. Wash., D. C.)** — DOCKING BASIN, etc. — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., did not open bids July 21, for seaplane docking base, paving, etc. Naval Air Station, NOY 9115. $1,500,000. CD 7/13—ENR 7/13 under BA.

Mass., Fitchburg—PARK DEVELOPMENT—Whalon Park Assn., H. Bowen, Main St., plans by Ackley, Bradley & Day, 508 3 Ave., Pittsburgh, Pa., rebuilding 3 amusement projects. CD 5/5—ENR 5/11.

Minnesota—FARM CONNECTIONS—Agra-Lite Cooperative Assoc., Benson, farm connections, Big Stone Co., $210,000.

Minnesota—FARM CONNECTIONS—Lake Region Cooperative Electric Assoc., Pelican Rapids, farm connections, Ottertail Co., $220,000.

Minnesota — FARM CONNECTIONS — Meeker Cooperative Light & Power Assoc., Litchfield, farm connections, Meeker Co. $150,000.

Mississippi—FARM CONNECTIONS—East Mississippi Electric Power Assoc., Meridian, farm connections, Clarke and Lauderdale Counties, $100,000.

Mississippi — FARM CONNECTIONS — Southern Pine Electric Assoc., Taylorsville, farm connections, Smith Co., $50,000.

Mississippi—FARM CONNECTIONS—Twin Co. Electric Power Assoc., Hollandale, farm connections, Washington Co., $80,000.

Missouri—FARM CONNECTIONS—Callaway County Electric Cooperative Assoc., Fulton, farm connections, Callaway, $90,000.

Nebraska—FARM CONNECTIONS—Dawson Co. Public Power Dist., Lexington, farm connections, Dawson Co., $100,000.

Nebraska—FARM CONNECTIONS—Norris Rural Public Power Dist., Lincoln, farm connections, Norris Co., $150,000.

Nebraska—FARM CONNECTIONS—York County Rural Public Power Dist., York, farm connections, York Co., $200,000.

North Carolina—RURAL LINES—Randolph Electric Membership Corp., Asheboro, exten. rural lines in Randolph, Alamance, Chatham, Moore and Montgomery Counties. $60,000. REA allot.

†Pa., Crafton — FIELD LIGHTING SYSTEM—U. S. Eng., Standard Oil Bldg., Baltimore, Md., field lighting sys., CAA.

South Carolina—FARM CONNECTIONS—Marlboro Electric Cooperative, Inc., Bennettsville, farm connections, Marlboro Co., $25,000.

Tex., Amarillo—PIPELINE—Phillips Petroleum Co., Bartlesville, Okla., laying approx. 170 mi. 6 to 20 in. natural gas pipeline carriers in west Texas and Panhandle zone. Over $250,000.

Tex., Bishop — PIPELINE CARRIER — Celanese Corp. of American Bishop, laying 90 mi. 24 in. natural gas pipeline carrier, $375,000.

Tex., San Antonio—RADIO STATION—Radio Station K.A.B.C., Milam Bldg., new 2 story station and transmitter bldg., etc., over $50,000. Barlett Cocke, 1504 Milam Bldg., San Antonio, archts. CD 5/9—ENR 5/11.

Tex., Yorktown—AIRPORT—City, municipal airport, incl. 2 runways, hangar, fueling, shop, etc., $80,000.

B. C., Victoria—SKATING RINK BLDG., etc.—H. B. Olson and Municipality, Willones Arena, plans combined skating rink and horse show bldg. $65,000.

BIDS ASKED

Bids Asked August 21

†Vt., Barre and Montpelier—AIRPORT—Civil Aeronautics Admin., 385 Madison Ave., New York 17, N. Y., clearing 15 acres, excavating 3,500 cu. yd., draining 3,300 lin. ft. cleaning 10,000 ft. drainage pipe and 25 manholes, etc. for municipal airport. Plans deposit $10 each set. CD 9/24—ENR 9/30.

Bids Asked

†Okla., Cushing — LIGHTING SYSTEM — U. S. Eng., 416 Wright Bldg., Tulsa, Zone 2, outside night lighting sys. for municipal airport and streets. Solic. No. 34-066-45-2. Est. over $25,000.

†Tex., Abilene—PARKING APRON—U. S. Eng., Fort Sam Houston, addnl. parking apron, Taylor Co. Spec. 1162.

Bids Asked September 6

†Fla., Banana River—HANGAR, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., 25, D. C., hangar with 2 two story lean-tos for Project Baker, Naval Air Station, NOY 10439. CD 1/4.

Bids Asked

†Calif., Moffett Field—RAMPS, etc.—National Advisory Committee for Aeronautics, Ames Aeronautical Laboratory, Moffett Field, ramps, streets, sidewalks, utilities from L. C. Smith, 1 and Railroad Sts., San Mateo, $269,686.

LOW BIDDERS

†Md., Aberdeen—WALL TARGETS, etc.—U. S. Eng., Standard Oil Bldg., Baltimore, Aug. 3, constructing wall targets and sand butts, from Leimbach & Williams, 30 W. Biddle St., Baltimore, **$179,955.**

★**N. Y., Idlewild**—AIRPORT GRADING—Dpt. Marine & Aviation, Pier A, North River, New York, Zone 4, Aug. 9, Contr. 6, grading, incl. approx. 2,500,000 cu. yd. fill at airport, from Circle Const. Corp., Brockway Pl., White Plains, 29c per cu. yd. Est. **$725,000.** CD 7/27—ENR 8/3.

Ont., Athens—DAM & SPILLWAYS—Koon Kreek Klub, Athens, Aug. 7, repair earthen dam and 2 new spillways, from Gaylord Constr. Co., 803 Bledgett St., Houston, **$59,140.** O. N. Floyd, 1207 Texas Bank Bldg., Dallas, engr. CD 8/1—ENR 8/3.

Wisconsin — ELECTRIC DISTRIBUTION SYSTEM—Clark Electric Co-op., Greenwood, 53 mi. electric distr. sys., Wisc.-4629B2-Clark Co., from L. G. Arnold, Inc., 201¼ N. Dewey St., Eau Claire, **$49,746.** CD 1/19—ENR 1/27.

★**B. C., New Westminster**—FISH LADDER, etc.—International Pacific Salmon Fisheries, Comm., Dominion Bldg., Aug. 2, 2 fish ladders and channel work in Hell's Gate Canyon, Fraser River, from Coast Constr. Co. Ltd., 510 W. Hastings St., Vancouver, **$514,649.** CD 7/7—ENR 7/13.

CONTRACTS AWARDED

†Calif., Alameda—SEAPLANE HANG... DOORS—Yards & Docks, Navy Dpt., 18 ... and Constitution Ave. N.W., Wash., 25, D. ... doors for seaplane hangar, Naval Air ... tion, NOY 9791, to Fred D. Kyle Co., c/o ... C. C. 12th Naval Dist., Headquarters, ... Francisco, **$32,375.**

★**†Calif. Alameda**—AIR STATION BLDG... —Yards & Docks, Navy Dpt., 18 St. ... Constitution Ave. N.W., Wash. 25, D. ... miscellaneous bldgs., services, Naval Air ... tion, NOY 10263 to Dinwiddie Constr. ... Crocker Bldg., San Francisco, Zone 4, ... **157,800.** CD 8/4 under LB.

★**†Calif., Holtville**—AIR STATION W.O... —Yards & Docks, Navy Dpt., 18 St. ... Constitution Ave. N.W., Wash. 25, D. ... addnl. air station Work, Naval Auxiliary ... Station, Spec. 14457, NOY 9997, to ... Farnell Blair, Decatur, Ga., **$734,147.** ... 7/27 under LB.

Calif., Los Angeles—PIPELINE—South... California Gas Co., 810 S. Flower St., ... 16 in. gas pipe line along Crenshaw Blvd., ... Pacific Pipe Line Constr. Co., 8732 Juni... St., Approx. **$120,000.** (Owner to furn... pipe.)

★**†Calif., San Diego**—STEAM & AIR F... CILITIES—Yards & Docks, Navy Dpt., ... St. and Constitution Ave. N.W., Wash. ... D. C., addnl. steam and air facilities, boil... Naval Air Station, NOY 10269, to Oil Fi... Constr. Co., 2650 Cherry Ave., Long Beac... c/o O I N C C, 11th Naval Dist., Hea... quarters, San Diego, Zone 30, **$167,730.**

★**†Calif., Seal Beach** — AMMUNITIO... CLASSIFICATION & SEGREGATIO... YARD—Yards & Docks, Navy Dpt., 18 ... and Constitution Ave. N.W., Wash. 25, D. C... ammunition classification and segregati... yard, Naval Ammunition and Net Depo... NOY 9805, to United Concrete Pipe Corp., ... P. O. Box 1, State H, Los Angeles, Zone 4... **$1,546,000.** CD 8/3 under Public Bldg., un... der LB.

Conn., New Britain—WADING POOL... City. Dpt. Parks, repairing wading poo... incl. 35,000 sq. ft. concrete floor slab, ... De Lucca Constr. Co., 322 Main St., Stamford ... Est. **$25,000.** Geo. Molleur, City Hall, eng... CD 11/24—ENR 12/2.

★**†Ga., Glynco**—RUNWAYS, etc.—Yards ... Docks, Navy Dpt., 18 St. and Constitu... tion Ave. N.W., Wash. 25, D. C., 3 H.T.... runways, taxiways, parking apron, Nav... Air Station, NOY 10052, to H. E. Wolf ... Constr. Co., P. O. Box 489, St. Augustine ... **$1,080,572.** CD 8/7—ENR 8/10 under LB.

Iowa — RURAL ELECTRIC LINES — Sa... County Rural Electric Co-Operative, Sac ... City, constructing 47 mi. transmission line ... Sac Co., to Olds Electric Co., 1522 Washing... ton St., Davenport, **$43,791.** Bids 7/10. C... 6/21—ENR 6/29.

★**†O., Springfield**—AIRPORT CLEARING ... etc.—Civil Aeronautics Admin., 601 ... Dearborn St., Chicago, Ill., airport clearing ... grubbing, grading, underdrains, storm sew... ers, fencing, sodding, etc. to Lewis & Fri... inger, Julius Porath and Schwaderer & Co., ... Ann Arbor, Mich., **$1,213,811.** Bids 7/21... CD 7/27—ENR 8/3 under LB.

Tex., Crane—PIPELINE—Atlantic Refi... ing Co., M Esperson Bldg., Houston, 4 mi... 4 in. crude oil pipe line to Wasson-Rob... main trunk line, force account, **$40,8...** CD 8/9.

Tex., Lockhart—GROUNDS and SWIM... MING POOL—Texas State Parks Bd., Austin ... grounds and swimming pool work at Sta... Park, force account **$30,000.** Bids 8/3. C... 7/26.

Tex., Mc Camey—OIL PIPE LINE—Texa... New Mexico Pipe Line Co., Lovington, la... ing 2 mi. 4 in. crude oil pipe line from M... Camey Station west, force account, **$30,0...** CD 8/9.

Wisconsin — ELECTRIC DISTRIBUTIO... SYSTEM—Barron County Electric Coop... Barron, 92 mi. electric distr. sys., REA Pro... Wisc. 4040-E2-Barron to H. LePage, Sheb... gan, **$93,794.** Bids 8/2. CD 7/26—ENR 8/3.

Newfoundland, St. Johns—AERODROM... —Dpt. Transport, Ottawa, Ont., addnl. d... velopment of Tor Bay Aerodrome, ... grading, drainage, hard surfacing, to M... Namara Const. Co. Ltd., Industrial ... Toronto, Ont. **$75,000.**

Ont., Hagersville—RUNWAY SURFACIN... —Dpt. Natl. Defence (Air), Ottawa, repair... ing and surface treating runways at R.C.A.F. ... School to Johnson Brothers Co. Ltd., 4... Market St., Brantford. **$31,000.** BA 7/... CD 6/29.

Ont., Kingston—DOCK—Queen's Univer... sity, Dr. R. C. Wallace, principal, doc... addn., to Canadian Dredge & Dock Co. Ltd., ... Harbour Commissioners Bldg., Toronto. Est. ... **$33,000.** CD 7/27—ENR 8/3.

★**Que., Dorval**—AIRPORT—Dpt. Muni... tions & Supply, Ottawa, Ont., constructing ... No. 5 hangar and lean-to to Byers Const. ... Co. Ltd., 1226 University St., Montreal, ... **$500,000;** addnl. development to Dibble ... Const. Co. Ltd., 660 St. Catherine St., W., ... Montreal, **$750,000.** CD 7/26—ENR 8/3.

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